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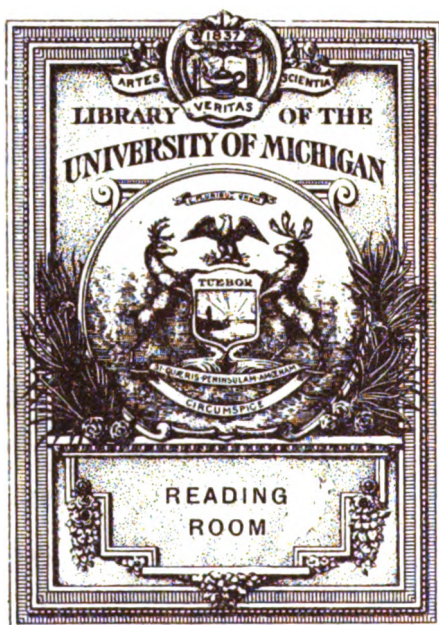


PEACE HANDBOOKS

VOL. IX

RUSSIAN EMPIRE

1920



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PEACE HANDBOOKS

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VOL. IX

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THE

RUSSIAN EMPIRE

50. COURLAND, LIVONIA, ESTHONIA

51. BESSARABIA

52. UKRAINE

53. DON AND VOLGA BASINS

54. CAUCASIA

55. EASTERN SIBERIA

56. SAKHALIN

LONDON:
H.M. STATIONERY OFFICE.

1920.

Editorial Note.

IN the spring of 1917 the Foreign Office, in connection with the preparation which they were making for the work of the Peace Conference, established a special section whose duty it should be to provide the British Delegates to the Peace Conference with information in the most convenient form—geographical, economic, historical, social, religious and political—respecting the different countries, districts, islands, &c., with which they might have to deal. In addition, volumes were prepared on certain general subjects, mostly of an historical nature, concerning which it appeared that a special study would be useful.

The historical information was compiled by trained writers on historical subjects, who (in most cases) gave their services without any remuneration. For the geographical sections valuable assistance was given by the Intelligence Division (Naval Staff) of the Admiralty; and for the economic sections, by the War Trade Intelligence Department, which had been established by the Foreign Office. Of the maps accompanying the series, some were prepared by the above-mentioned department of the Admiralty, but the bulk of them were the work of the Geographical Section of the General Staff (Military Intelligence Division) of the War Office.

Now that the Conference has nearly completed its task, the Foreign Office, in response to numerous enquiries and requests, has decided to issue the books for public use, believing that they will be useful to students of history, politics, economics and foreign affairs, to publicists generally and to business men and travellers. It is hardly necessary to say that some of the subjects dealt with in the series have not in fact come under discussion at the Peace Conference; but, as the books treating of them contain valuable information, it has been thought advisable to include them.

It must be understood that, although the series of volumes was prepared under the authority, and is now issued with the sanction, of the Foreign Office, that Office is not to be regarded as guaranteeing the accuracy of every statement which they contain or as identifying itself with all the opinions expressed in the several volumes; the books were not prepared in the Foreign Office itself, but are in the nature of information provided for the Foreign Office and the British Delegation.

The books are now published, with a few exceptions, substantially as they were issued for the use of the Delegates. No attempt has been made to bring them up to date, for, in the first place, such a process would have entailed a great loss of time and a prohibitive expense; and, in the second, the political and other conditions of a great part of Europe and of the Nearer and Middle East are still unsettled and in such a state of flux that any attempt to describe them would have been incorrect or misleading. The books are therefore to be taken as describing, in general, *ante-bellum* conditions, though in a few cases, where it seemed specially desirable, the account has been brought down to a later date.

G. W. PROTHERO,

General Editor and formerly

Director of the Historical Section.

January 1920.



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HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 50*

COURLAND, LIVONIA AND ESTHONIA

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1920

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I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

THE Baltic Provinces, lying between 55° 45' and 59° 45' north latitude and 20° 55' and 28° 15' east longitude, are composed of the three western Russian Governments (*gubernii*) of Estland, Livland, and Courland, or, as they are more commonly called, Esthonia, Livonia, and Courland. They also include a whole archipelago of islands upon the north-west coast, of which the chief are Ösel (Ezel), Moon and Runö, belonging officially to Livonia, and Dagö and Wormsö (Vorms), belonging officially to Esthonia.

Two-thirds of the total length of the boundaries of the country are formed by sea. This expanse of sea, together with the possession of the ports of Libau (Libava), Windau (Vindava), Riga, and Revel (Reval), constitutes the geographical importance of the Baltic Provinces. They are the nearest Russian points to western trade and civilization, and at the same time lie on the great trade-routes from northern and central Russia and even from Siberia. They control the Gulf of Finland, the Gulf of Riga, and the east end of the Baltic Sea. Even more than Petrograd, they are the window of Russia towards western Europe, and their loss would very seriously hamper her commercial development.

Esthonia, Estland, or Eestimaa, is bounded on the north by the Gulf of Finland; on the west by the Baltic Sea; on the south by Livonia and the Chudskoe or Peipus Lake; on the east by the River Narova, which divides it from the Petrograd Government. These are the official boundaries. The linguistic boundaries, however,

include the four northern Livonian districts, Pernau, Fellin, Dorpat (Yuryev, Yurev), and Verro, where the population is predominantly Esthonian.

Livonia, or Livland, is bounded on the north by Esthonia; on the west by the Gulf of Riga; on the south by Courland, the lower Dvina, the Vitebsk Government, and Lake Luban; on the east by the Vitebsk and Pskov Governments, and the Pskov and Peipus lakes. Linguistically the boundaries of Livonia would include the three western districts of the Vitebsk Government, Dvinsk, Ryejitsa, and Lyutsyn, where the population is almost exclusively Lett.

Courland, or Kurland, is bounded on the north by the Baltic Sea and the Gulf of Riga, the Riga district, and the Dvina; on the west by the Baltic Sea; on the south by Prussia and the Kovno Government; on the east by the Dvina. From the linguistic point of view the south-east district of Courland, that of Illukst, presents a curious problem: the north is entirely Lett; the south-west entirely Lithuanian; the east entirely White Russian.

(2) SURFACE, COASTS, ISLANDS, AND RIVERS

Surface

The Baltic Provinces in general form a large low-lying plain, which in the north makes an abrupt drop to the Gulf of Finland, and in the centre, i. e. the southern part of Livonia, is intersected by spurs of hills, which are continuations of central Russian heights.

Esthonia has an area of 7,818 square miles. Its surface is low, not rising above 185 ft. along the north coast and on the shores of Lake Peipus, while the average height of the interior varies from 200 to 300 ft., with a maximum of 450 ft. in the Wesenberg (Vezenberg)

district. Lakes and marshes form quite $22\frac{1}{2}$ per cent. of the surface. The soil can hardly be called fertile, for the larger half of the Esthonian Government, i. e. the Hapsal and Revel districts, is covered with sandy soil, which in many places degenerates into pure sand and is incapable of cultivation. The rest of Esthonia, and particularly the Weissenstein (Veisen-shtein) district and the northern part of the Wesenberg (Vezenberg), is covered partly with clay and clay sand and partly with a lighter clay soil of a similar type. Peat marshes are scattered all over the country.

Livonia covers an area of 18,160 square miles. The surface is broken up by three plateaux: one south of Dorpat, another forming the south and east part of the Verro district, and a third lying around the basin of the Livonian Aa, with Wenden (Venden) as its chief town. The western portion of this third plateau is known as the 'Livonian Switzerland'. Apart from the plateaux, Livonia is an undulating plain.

A considerable area of the Livonian coast, particularly the south-west part of the Riga district, and the island of Ösel, is covered either with sandy soil, not very fertile, or pure uncultivable sand. There are more than 1,000 lakes, of which Lake Peipus and Lake Wirz-Järw (Virts-Yarv) are the largest. Forests cover about two-fifths of the whole surface; marshes and peat-bogs fully one-tenth. It is only recently that attempts have been made to cultivate this marshy area. Drainage has been undertaken, with the result that the drained marshes produce excellent hay and grain harvests.

Courland has an area of 10,535 square miles. The surface is for the most part undulating, rising nowhere more than 700 ft. above sea-level. The Mitau (Mitava) plain divides it into two halves, of which the western is the more fertile and populous. The larger part of

Courland is covered with sandy soil or sand ; the rest with clay or lighter clay-sand soil. There are many marshes, the largest being the Tirul swamp, between Mitau and Riga. The interior of the country is characterized by wooded dunes covered with pine, fir, birch, and oak-trees, with intervening patches of fertile country. One-third of the whole area is still occupied by forests.

Coasts and Islands

The north coast of the Baltic Provinces lies along the Gulf of Finland. It is the precipitous northern scarp of the great Esthonian plain, composed of cliffs reaching 185 ft., and clothed with luxurious vegetation. With the exception of Revel and Baltisch (Baltiski) Port (used when Revel is frozen), and of the small port of Kunda in the Wesenberg district, this north coast is harbourless and of no use for navigation.

The west coast, as far as the horseshoe Gulf of Pernau (Pernov), is full of deeply indented bays, capes, and promontories. The coast consists chiefly of sand and sand-dunes, with here and there patches of limestone, bordered closely by woods and wooded plains. Opposite this part of the coast lies a quadrilateral of fair-sized islands, of which Dagö (area 350 sq. miles) and Wormsö (area 34 sq. miles) form the northern extremities, Ösel and Moon the southern. The Sele Sound, 7 miles across, divides Dagö on the south from Ösel (area 1,010 sq. miles). Ösel possesses the only port in the whole archipelago, the capital town of Arensburg, and is joined to Moon by a mole across a narrow intervening channel, while Moon is separated from the Werder (Verder) peninsula on the Esthonian mainland by the Moon Sound, a long strip of water 6 miles across, with the island of Shildau in the middle. There is a fairway of 4 fathoms, but its value for navigation is lessened by the Kumorsky reef,

which blocks the north end. These islands nearly convert the Gulf of Riga into a land-locked sea. The only other exit is through the Irben Strait, between Ösel and the Courland coast. This is 18 miles wide, but with a fairway of only $7\frac{1}{2}$ miles, close in to Courland, with a depth of about 14 fathoms and a treacherous bar.

South of Pernau the mainland coast changes its outline. From here to Riga, and along the east, north, and west of Courland, it is, generally speaking, flat, harbourless, and sandy, with tracts of sparsely covered dunes, and wooded uplands frequently approaching close to the water.

It is only in the southern half of the Baltic Provinces that there are coastal plains. They exist at the mouths of the Livonian Aa, the Dvina (of which the delta forms a large, flat, and somewhat marshy plain), and the Windau (Vindava), at Libau, and in the southwest portion of Courland adjoining East Prussia. They contain three of the most important ports in the Baltic Provinces, Riga, Libau, and Windau.

Rivers

The river systems can be summed up in one sentence—the region is drained by the Dvina and a number of minor rivers. The Dvina is one of the keys to the commercial prosperity of Livonia and Courland.

Esthonia. The chief means of drainage are Lake Peipus and the River Narova. There are many small rivers, of little value for navigation. The Narova performs the important office of connecting Lake Peipus and the vast area which it drains, both in northern Livonia and the Petrograd Government, with the Gulf of Finland.

Livonia. The Western Dvina (*Západnaya Dviná*), or *Dáugawa* as the Letts call it, is the centre of the

internal traffic of Livonia and Courland. It is possible that its importance may be increased in the future by the adoption of a scheme for regulating the river and connecting it by a canal with the Dnieper and Kherson on the Black Sea. According to the record of the years 1900-9 the Dvina was either wholly or partially navigable for 200-253 days.

Entering the Baltic Provinces between Drissa and Dvinsk, the Dvina flows west to Dvinsk. Here and shortly below Dvinsk it is bridged by the railway from Vilna joining the main Dvinsk-Riga line, which runs along the right bank of the river. The Dvina then flows north-west in a comparatively deep valley, entering Livonia above Friedrichstadt. Above Riga, where the firm rocky soil ceases, and the high banks recede from the river, it divides into several arms, and at Riga the river is crossed by a massive railway bridge as well as by a pontoon structure.

Shipping in the general sense is possible only from Dünamünde (Ust Dvinsk) to Riga. The shifting nature of the sands makes navigation difficult, and necessitates constant charting. The main traffic above Riga is in timber. Smaller craft of all kinds ply up and down.

Other Livonian rivers are the Pernau, the Salis, the Livonian Aa, and the Embakh. All are navigable and are used for timber-rafting. A steamer runs from Dorpat to Pskov by way of Lake Peipus.

Courland.—Though Courland rivers are numerous, the Windau, Courland Aa, and Dvina alone are navigable. The Courland Aa flows through the Mitau plain, which divides the Government into two halves. It is bridged twice at Mitau and once at Dünamünde, and is navigable between these two towns.

There is no lack of water in the Baltic Provinces. The problem is one of further regulation and drainage.

(3) CLIMATE

Owing largely to the proximity of the sea, the climate of the Baltic Provinces is generally temperate, and seasonal changes are gradual. The winters, however, are long and somewhat severe, particularly in Esthonia, which is bleaker than the other two provinces, and suffers from more frequent storms. The geographical position of Ösel and the other islands off the west coast, blocking the mouth of the Gulf of Riga, leads to an earlier freezing of its waters and a later opening for navigation than would otherwise be natural. The Gulf of Riga is icebound, as a rule, from December to March, but in the open Baltic Sea there is very little ice west of Courland. Hence Libau and Windau are ice-free ports. The Gulf of Riga itself has less ice than the Gulf of Finland.

Climatic drawbacks, from the point of view of agriculture, include a cold and dry spring and summer humidity. The summer climate much resembles that of the German coast of the Baltic Sea; it is apt to be moist and cloudy, but in July is warmer than many neighbouring parts of Germany. There is a good deal of damp and fog. For this the sea is partly responsible, and partly the existence of so many lakes and marshy tracts.

The average temperature for January along the Courland coast from north of Memel to the town of Windau varies from $26.6^{\circ}\text{F.} (-3^{\circ}\text{C.})$ to $24.8^{\circ}\text{F.} (-4^{\circ}\text{C.})$, whereas in the interior of the Baltic Provinces it is noticeably lower, varying from $19.4^{\circ}\text{F.} (-7^{\circ}\text{C.})$ to $17.6^{\circ}\text{F.} (-8^{\circ}\text{C.})$. On the whole the winters on the coast are milder, while the summers are cooler, than are the same seasons in the interior; and the climate in the south is, in general, warmer than in the north. Hence cereals produce richer crops in the

south, while potatoes are more successfully cultivated in Esthonia than in any other Russian Government.

For a period of ten years, 1886-95, the average rainfall over the whole Baltic Provinces was in winter 3·2 in. (82 mm.), in spring 3·7 in. (96 mm.), in summer 8·6 in. (220 mm.), in autumn 5·9 in. (150 mm.), and for the whole year 21·5 in. (548 mm.). The present average of rainy and snowy days at Riga is 146.

(4) SANITARY CONDITIONS

There is naturally a great difference between town and country conditions. The towns compare very favourably with other Russian towns, though, with the exception of Riga, they hardly yet satisfy scientific western standards.

In the country a great variety of conditions obtains. Cleanliness is more characteristic of the Letts than of the Esthonians; but in the out-of-the-way districts of both Provinces, particularly as regards many of the schools, hygiene and sanitation are extremely bad.

(5) RACE AND LANGUAGE

The *Esthonians*, Esths, Ehsts, or Ests, in nationality, speech, and customs, belong to the Ugro-Finnish family, and therefore to the Ural-Altaic branch of the human race. They first appear in history as a predatory, piratical race in the northern Baltic provinces, who are supposed to have migrated from the interior of Russia to the Baltic coast, before the two Finnish tribes of Tavasti and Koreli (occupying the west and east of Finland respectively). In physiognomy the Esthonians closely resemble the Finns of Tavastland, a Ural-Altaic Mongolian type.

They cling tenaciously to their language, which is

closely akin to Finnish. There are three varieties of local dialects, Yuryev, Revel, and Pernau Esthonian. Revel Esthonian, with its full inflexional forms and greater attention to the laws of euphony, is now generally accepted as a literary language. It is pleasant to the ear, but poor in the expression of abstract ideas.

The lower half of Livonia and the whole of Courland are inhabited chiefly by *Letts*, *Latvis*, or *Latavians*, a race which, like its neighbours the Lithuanians, belongs to the Baltic group of the Indo-European stock. In the south and south-east of Courland they are sometimes called *Semigallen*, while the Russians call them *Latysh*i. In many respects they resemble Lithuanians in physique.

The Lett language bears much the same relation to Lithuanian as English to German. It possesses an unusually large vocabulary for the world of nature, and is also rich in diminutives and terms of affection, wherein it resembles Russian.

The *Livs*—*Lib* as they call themselves, or *Live* as the Russians call them—gave their name to Livonia. They still live in small numbers in north-east Courland, and were possibly a transition group between Esthonians and Finnish *Koreli*. They are now indistinguishable from Letts, and may be classed with them.

The *Kurs*, whose folk-name, like that of the *Livs*, became an ethnographic name, are an admixture of *Livs* and *Letts*, in which the latter now predominate. These *Kurs* or *Kurszei* live in small numbers in East Prussia, on both sides of the *Kurische Nehrung* and on the *Memel* coast. But a curious survival of their past history is the fact that up to this day the *Samogitian* peasants in the Government of *Kovno* call Courland Letts by the name of *Kurs*. The language of the *Kurs* is Lett.

Other Races.—Germans, Russians, Jews, and Swedes,

who are all represented in the population of the Baltic Provinces, require no special treatment here.

It should be noted that the administrative division into governments does not correspond to the ethnological boundaries. The Provinces, as a whole, fall into a northern Esthonian and a southern Lettish half, the Government of Livonia being occupied by Esthonians in the north and by Letts in the south.

The population was divided up among the following nationalities according to the census of 1897 :

| | <i>Esthonia.</i> | | <i>Livonia.</i> | | <i>Courland.</i> | |
|--------------|--------------------|----------|--------------------|----------|--------------------|----------|
| | <i>Population.</i> | <i>%</i> | <i>Population.</i> | <i>%</i> | <i>Population.</i> | <i>%</i> |
| Esthonians . | 365,959 | 88·67 | 518,594 | 39·91 | — | — |
| Letts . . | 472 | 0·11 | 563,829 | 43·4 | 505,994 | 75·07 |
| Germans . | 16,037 | 3·9 | 98,573 | 7·57 | 51,017 | 7·57 |
| Russians . | 20,899 | 5·07 | 69,614 | 5·36 | 38,276 | 5·68 |
| Poles . . | 1,237 | 0·29 | 15,132 | 1·16 | 19,688 | 2·92 |
| Jews . . | 1,269 | 0·31 | 23,728 | 1·83 | 37,689 | 5·59 |
| Lithuanians. | 86 | 0·02 | 6,594 | 0·51 | 16,351 | 2·45 |
| Swedes . . | 6,757 | 1·63 | 3,301 | 0·26 | 4,839 | 0·72 |

(6) POPULATION

Distribution

According to the Russian census of 1897 the total population of the Baltic Provinces was 2,386,115; a later official estimate, taken from the *Russian Year Book*, 1916, gives a total of 2,767,900 (for January 1, 1913). The following are the statistics given by the census :

| | <i>Total.</i> | <i>Urban Population. %</i> |
|----------------------|---------------|------------------------------------|
| Baltic Provinces . . | 2,386,115 | 25·7 |
| Esthonia . . . | 412,716 | 16·1 |
| Livonia . . . | 1,299,365 | 29·3 |
| Courland . . . | 674,034 | 23·1 |

The following are the figures given in the *Russian Year Book* :

| | Population of Districts and Govern- ments. | Population of Towns. | Males. | Females. | Total. |
|--------------------|---|-------------------------|-----------|-----------|-----------|
| Esthonia . . . | 391,500 | 100,500 | 242,700 | 249,300 | 492,000 |
| Livonia . . . | 1,052,800 | 440,000 | 728,000 | 764,800 | 1,492,800 |
| Courland . . . | 576,900 | 206,200 | 381,100 | 402,000 | 783,100 |
| Baltic Provinces . | 2,021,200 | 746,700 | 1,351,800 | 1,416,100 | 2,767,900 |

Until quite lately the ruling class, both in town and country, was German. To this class belonged the owners of big estates (more land goes to 688 German landlords than to 31,838 peasant farmers), the commercial magnates, the chief traders and merchants in the larger towns. Germans shared some of the highest administrative posts with the Russians, such as those of judges, police, commissaries for managing peasant affairs, and teachers in the educational establishments. The relations existing between the natives and the Germans cannot be said to be good. Race-hatred in the Baltic Provinces is essentially hatred of the Germans, the so-called Baltic barons, and is almost universal. The causes of it are partly historical, partly political, but still more economic (cf. below, pp. 21-24, and 26-28).

The Russians in the country localities consist largely of Government officials and soldiers, and in recent years have included a number of imported agricultural labourers. Many of the highest officials were Russians.

The Jews, particularly in Courland, form a large proportion of the small merchants, small officials, and journeymen. They live in considerable numbers in Riga and in the less important commercial towns. There are a few thousand Swedes in Ösel, Runö, and

elsewhere. In Courland there is a certain number of Lithuanians, who live as country labourers or local journeymen.

Movement

A distinguishing feature of the Baltic Provinces is the slow growth of the population. The average annual rate of increase for the ten years 1891-1900 was 9.3 in Esthonia, 8.0 in Livonia, and 8.4 in Courland per 1,000 inhabitants. There has not been a very marked change since. This may be explained partly by the naturally slow rate of increase, partly by the common tendency of young nations to make the most of better conditions in towns without the encumbrance of a family, but chiefly by emigration, which is due in the main to the economic dependence of the poorer part of the agricultural population.

The birth-rate averages 28, the death-rate 20 per 1,000 inhabitants. The mortality in Courland is lower than anywhere else in Russia.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1201. Riga founded by Bishop Albert I.
- 1238. Danes, aided by Germans, complete conquest of Esthonia.
- 1330. The Teutonic Order conquers Riga.
- 1346-7. After an unsuccessful rebellion, Esthonia falls to the Teutonic Order.
- 1466. Teutonic Order in Prussia subjected to Poland.
- 1558-62. Russian War.
- 1560. Esthonia becomes Swedish.
- 1561. Teutonic Order in Baltic Provinces dissolved.
- 1562-83. Wars of Russia, Poland, and Sweden. Poland acquires Livonia, and Courland becomes a Polish fief.
- 1621. Gustavus Adolphus captures Riga.
- 1660. Peace of Oliva. Definite cession of Livonia by Poland to Sweden.
- 1700-21. Northern War. Esthonia and Livonia conquered by Russia.
- 1710. Capitulations agreed to by the Tsar.
- 1721. Sweden cedes conquered provinces by Treaty of Nystad.
- 1737. Courland falls under the influence of Russia.
- 1795. Third Partition of Poland. Courland incorporated in Russia without capitulations.
- 1804. Livonian peasants receive a measure of emancipation.
- 1816-19. Peasant ordinances in Esthonia, Courland, and Livonia.
- 1832. Church Law for the Lutheran Church in Russia.
Conflict between Lutheranism and Orthodoxy follows its application to Esthonia, Livonia, and Courland.
- 1836. Orthodox bishopric founded in Riga.
- 1863. Agrarian reforms completed.
- 1877. Introduction of the Russian ordinance for towns.
- 1888. Russian police system introduced.
- 1897. One hundred and thirty-eight Lettish political offenders imprisoned or exiled.
- 1901. Lettish Social Democratic circle in Riga constituted.

- 1905. Outbreak of revolution.
- 1906. German Unions founded.
- 1907. Election to Duma. German successes.
- 1908. State of siege replaced by that of reinforced protection in Baltic Provinces.

(1) INTRODUCTORY

CURLAND, Esthonia, and Livonia¹ are commonly spoken of by Germans as the Baltic Provinces and will here be so entitled. Although between 1200 and 1795 their political allegiance was by no means uniform, they usually formed a distinct group of provinces, far more sharply marked off from their neighbours than from each other and possessing substantially the same social relationships and religious organization. The Esthonians who inhabit Esthonia and northern Livonia are Finns; the Letts who inhabit Courland and southern Livonia are Indo-Europeans. Thus between Esthonians and Letts there is a deep cleavage in speech, mode of life, and character, and they are usually regarded as hereditary foes. During the seven centuries of which account must here be taken, these two races have occupied the Baltic Provinces in overwhelming numerical preponderance, while only a fragment of either is to be found in the world outside.

It is proposed to describe briefly how the Baltic Provinces passed by conquest under the dominion of German colonists and eventually of the Teutonic Order; how they embraced the Reformation; how, under the stress of Russian attack, the members of the Order made terms with Sweden and Poland, their new overlords; how Sweden enlarged her original share by depriving Poland of Livonia; how, under the stress of Russian attack, Esthonia and Livonia submitted upon

¹ In older authorities 'Livonia' has often a wider geographical extension.

terms to Russia; and how, when Poland disappeared, Courland was added to them. With the accession of Alexander I (1801), a new era began, and the history of the Baltic Provinces during the nineteenth century demands a somewhat fuller treatment. Hitherto there had been within their confines hardly more than two classes, the German conquerors and the Lettish and Esthonian conquered. Now there were to be added in increasing numbers the agents of the Russian Government, while the social and economic status of the natives underwent a remarkable transformation. Peasant emancipation was followed by the material well-being of some classes; popular education, by racial self-consciousness; the growth of towns, by movements towards revolution. At the same time the nationalistic policy of Russia embittered the religious and social conflicts within the Baltic Provinces, while the parallel movements in Germany and in Finland must have contributed towards the same result. In 1905 a violent revolutionary storm swept over the land, and from 1906 until the outbreak of the Great War the Russian Government appeared to show less disfavour to the German ruling caste as against the Lettish and Esthonian populations.

(2) THE BALTIC PROVINCES AND THE TEUTONIC ORDER

The present political situation in the Baltic Provinces is largely to be accounted for by the course of events in the twelfth and three following centuries. Germans, organized in the Teutonic Order, coming originally overseas for trading and missionary purposes, conquered and christianized the country, and turned it into a portion of their strong military state. The natives were left in possession of their homesteads, but the needs of their new lords soon demanded the surrender of every independent right, and they became

the human cattle upon whose labours the prosperity of the Baltic Provinces was based. Revolt proved hopeless ; the Russians were prevented by the Tatar onslaught from driving out the Germans ; the Provinces possessed in the fourteenth century connexion by land as well as by sea with Germany, and the German population was thus freely reinforced. But the growth of wealth and the absence of a high ideal induced decay ; successive losses of territory in the south to the new state of Poland-Lithuania isolated the dominions of the Order in the north, and when the Reformation came it dissolved the foundations of the state.

The final blow against the power of the Order in the Baltic Provinces was launched by Russia. Resenting the tutelage in which the Germans had long held his dominions, to which they forbade access from abroad, Ivan the Terrible decreed an appalling invasion in 1558. Foreign Powers intervened, and twenty years of warfare in Livonia and Esthonia resulted only in the confirmation of arrangements made at the outset. Esthonia submitted to Sweden, and Livonia to Poland ; while Courland, though nominally a Polish fief, became practically an independent duchy under Kettler, the last Master of the Order in Livonia.

(3) THE BALTIC PROVINCES UNDER SWEDEN AND POLAND

The fall of the Teutonic Order brought no great change either in the government or the religion of the Baltic Provinces. The Esthonian gentry made terms with Sweden, and the Livonians with Poland, and by this means secured all their rights and privileges. German remained the official language ; the Lutheran Church was not to be molested ; the law and its administration were guaranteed against interference. Contact with free Sweden, indeed, did in time bring to the

peasants some mitigation of their slavery, but Poland had nothing to offer them except Roman Catholicism, which they refused. The contest for their ecclesiastical allegiance, however, helped to preserve their native languages, which the contending Jesuits and Lutherans found it necessary to employ. Gustavus Adolphus of Sweden, in one of the long series of wars between Sweden and Poland (1598–1660), wrested Livonia from the Poles, and in 1632 founded the University of Dorpat. Again no social change was effected and the new university was to be German. Succeeding monarchs involved the provinces in fresh strife, Charles X by waging war in the accustomed manner and Charles XI by attacking the rights of the gentry in the interest of the Crown. Against such attacks Patkul, a Livonian nobleman, first protested and then intrigued with Denmark, Poland, and Russia, thus helping to bring about twenty years of war, the collapse of Sweden, and the rise of Peter the Great.

That war, the Great War of the North (1700–21), in its earlier stages laid waste a great part of the Provinces and annihilated the University of Dorpat. Much that the ruling German caste failed to do in the eighteenth century has been excused on the ground of this break-down in their wealth and education. It may therefore be remarked that evidence appears to be lacking in support of the theory that prior to the war they did or attempted anything with the object of mitigating the conditions which caused the country to be described as ‘the noble’s heaven and the peasant’s hell’. Such glimpses of the natives as appear show them unconsidered, downtrodden, and subservient.

The nobles, on the other hand, formed a vigorous and powerful caste, tenacious of its vested rights both against successive overlords and against the native serfs. German through and through, they had absorbed

some of the original Lettish nobles and a certain number of recruits from other lands. The martial and adventurous spirit which had originally prompted their advent in the Baltic Provinces was kept alive by their mode of life. They were colonists and squires surrounded by an alien race over whom they had the power of life and death, while themselves the vassals of alien princes who might be of another faith; and they were the occupants of domains for which great empires were contending. Prior to the downfall of Sweden they had sent a long array of notable generals and administrators to serve abroad, and this invaluable power of exporting men largely determined their history when they came under Russian rule. The permanence of the cleavage between themselves and the natives may in part be explained by the fact that non-noble Germans had also entered the Provinces in considerable numbers as merchants, tradesmen, and artisans, thus depriving the natives of the hope of rising by the performance of tasks which must be accomplished but which the noble caste declined.

(4) THE BALTIC PROVINCES UNDER RUSSIA. EIGHTEENTH CENTURY

The Great War of the North revealed so decided a superiority of Russia over her neighbours as to determine the controversy for the dominion of the Baltic Provinces. After ten years of warfare, the overthrow of Charles XII at Poltava (1709) brought about the submission of Esthonia and Livonia to the Tsar. Peter, as yet insecure in his conquests, fully endorsed the liberal Capitulations granted by his lieutenant. These renewed the privileges which the Provinces had secured on the collapse of the Teutonic Order, guaranteeing what a Baltic German styles 'the foundations of Livonian existence, the Evangelical

faith, her own administration and law, and the German language in Church, school, and public affairs'. In 1721 similar provisions appeared in the treaty which Russia dictated at Nystad (see Appendix, p. 80). Religious freedom, hitherto denied, was claimed for members of the Greek Church. Two million dollars were paid to Sweden, so that the Provinces might rank as purchased rather than conquered, for Peter had bound himself to return his conquests here to Poland.

Courland, whose dynasty obviously approached extinction, formed a prize which tempted the Polish and Prussian kings, the Polish Republic, and the Tsar. Peter had endeavoured to secure the succession by marrying his niece Anna to the heir-apparent; chance favoured Russia, and from 1737 Courland became practically a Russian dependency. In 1795, after the Third Partition of Poland, the Diet of Courland laid the country at the feet of Catherine the Great; the Duke abdicated; and Catherine merely promised in a manifesto to guarantee to the nobles their ancient rights. Thus the third of the Baltic Provinces became incorporated in the Russian Empire by the act of its Estates, among whom a pro-Prussian agitation had proved vain.

Meanwhile Esthonia and Livonia had passed 85 years under the rule of the Tsars. This at first involved little change in the existing order beyond what resulted from the presence of a Russian Governor-general who was disposed to favour the nobles and to show disfavour to the ambitions of the towns. That the land and its administration should be German was unquestioned, and the nobles strove, not without success, to fortify their own monopoly of internal power. They failed indeed to secure for the Provinces a separate code of law and court of appeal. But in 1737 they made good their claims to form a caste

distinct from men ennobled by State service, and in 1741 they gained the sole right to possess estates. The judges were to be named by them from among their own number; they administered the Crown lands and filled almost every civil post; the pastors were Germans nominated by them. When Pietism won the adhesion of the peasants, the German monopoly was upheld by the State, and in 1743 a ukase stamped out the movement. Nearly thirty years later a German traveller ascribed the hatred of the squalid natives towards the Germans to the fact that they were driven to their devotions with the same threats as to their labour in the fields.

With the accession of Catherine II (1762–96) ideas of enlightenment and progress returned to the Russian throne. In the Baltic Provinces the German-born Empress showed especial interest. In 1764 the Pietists received toleration, and next year the nobles were urged to improve the lot of their peasants. That men and women should not be sold or given away, that they should remain undisturbed in their homesteads so long as they duly performed fixed duties, that they should not be mated at their lord's command, that they should be capable of possessing property and of defending it and their persons against their lords by way of law—such were the chief reforms which Catherine desired and which the Baltic nobles firmly rejected. In 1779 they likewise refused compliance with her wish to extend to the Baltic Provinces the symmetrical administration which she had devised for Russia. Catherine, therefore, having softened the blow by turning their fiefs into freeholds, introduced the new institutions by force (1785); but her son Paul I restored the old within a month of her death. So long as Paul lived, the central power was even more reactionary than the Provinces, where progressive ideas

found an entry into Riga and some sections of the nobles, while the Pietist movement promoted humanity towards the serfs. In Alexander I (1801-25), however, the Baltic nobles found a ruler at once Liberal and sympathetic. With the nineteenth century a new era in the history of the Provinces began.

(5) THE BALTIC PROVINCES, 1801-66. THE LAND QUESTION

The contrast between the old spirit of government and the new received clear illustration in the matter of higher education. Paul had planned a Baltic University to prevent the nobles from studying abroad ; Alexander I created it, at Dorpat (1802), for the enlightenment of the whole Russian Empire. Although subjected to the new Ministry of Education, it was frankly German in language and intellectual inspiration, and thus reinforced the German elements in the Provinces and in the Empire by a stream of pastors, doctors, and lawyers. Such an institution, like the Teutonic monopoly of the Provinces in general, would be differently regarded by the supreme power according as centralization or its opposite was the ruling governmental conception of the day ; and Russian and German parties arose within the University itself.

Of even greater importance than higher education in the Baltic Provinces was agricultural reform. It is sometimes claimed that the German nobles, who had frustrated Catherine's proposals, of their own motion emancipated the peasants half a century earlier than did the Russian State. It is significant that in 1783 and 1802 peasant revolts were not suppressed without much bloodshed. Later, on the initiative of the Liberal party in the provincial diet, villeinage, with the Tsar's approval, replaced serfdom in Livonia (1804), the

peasant gaining some human rights, though remaining bound to the soil and to the service of his lord. Twelve years later Esthonia conceded personal freedom and the right of migration, and Courland and Livonia accepted the same principle (1817, 1819). But these measures fell far short of true emancipation. In Courland it was not until 1833 that the peasants gained a limited right of migration, although the towns remained closed to them. In 1845 they were first allowed to hire land with money in place of service, and peasant proprietorship did not follow until 1863.

‘No lasting good effects’, wrote the German traveller Kohl in 1840, ‘can be expected from the emancipation law till the further step shall have been taken of granting the peasant the right of acquiring a property in land. . . . Only then will he struggle to raise himself from his present abasement.’ In Livonia, as the price of ‘emancipation’, all the lands of the peasants had become the freehold of the lords, and in fact the old tyranny was maintained. The right to quit an estate, usually valueless to the peasant, might be made the excuse for dismissing him when his labour had ceased to be profitable to the lord. Not until 1849 in Livonia and 1856 in Esthonia did the system of the free hiring or purchase by peasants of lands reserved for them definitely triumph, with the goodwill of the Tsar. In 1865 and 1866 Courland and Livonia abrogated the exclusive right of the nobles to hold estates, thus arriving at the agrarian system of to-day. Under it, the Letts and Esthonians have produced a number of prosperous peasant proprietors. The Germans, however, continue to possess the great estates; and of the native races a very large majority are landless. To this fact may be ascribed in part the rapid growth of the urban population and the spread of social democracy.

(6) THE BALTIC PROVINCES, 1801-1905. THE
NATIONAL QUESTION

During the nineteenth century the problem of the Baltic Provinces became more and more fully a problem of nationality. The German inhabitants had always possessed a strong racial consciousness and pride. Between them and the natives yawned a chasm as deep as it had been six centuries before, though across it individuals, chiefly Letts, had crept for social promotion. Of Russian inhabitants there had been but a handful, and their access to a place in corporate life was sternly barred by the Germans. The Tsars, from Catherine onwards, were of German blood, usually with German consorts, and all showed a sympathetic interest in the Baltic Germans. Nicholas regarded them as a shield against western ideas and declared to a fiery Slavophil in 1849 that they had served faithfully—he could name 150 generals—and that Christians must not force Germans to become Russians. Alexander II told the Baltic nobles that they did well to be proud of their nationality. Although Russian attempts to de-germanize the Provinces were complained of far earlier, it was not until the German Empire had arisen that they became obvious and frequent.

With the advent of Alexander III (1881-94) the influence of the austere Pobiedonostsev became dominant; and the policy of 'one Tsar, one faith, one language, one law' was carried out in the spirit of a high-minded Inquisitor. In 1883 began the violent phase, more than twenty years long, of the struggle by the Germans to defend their privileged position against the Government and the native races. The great reforms of Alexander II had rendered the organization of the Provinces mediaeval in appearance at the same time that the tide of nationality was in full flow and

the emancipated Letts and Esthonians were rapidly advancing. By degrees the Russian Government came to regard the Baltic Germans as its enemies and to favour the Young Lettish and Young Esthonian parties at their expense until the Revolution of 1905 induced a change of course.

The efforts of the Government after uniformity within the Empire extended in 1888 and 1889 to the introduction of the Russian systems of police and justice. However superior in structure these might be when compared with the antiquated provincial institutions, they brought in a foreign language, judges unversed in the local conditions, and officials inferior in integrity to their predecessors, and thus augmented the widespread uncertainty and confusion. The newspapers were subjected to the Russian censorship, with the usual consequences.

(7) THE BALTIC REVOLUTION OF 1905 AND ITS CONSEQUENCES

During the first decade of the reign of Nicholas II (1894–1917) the policy of russifying the Baltic Provinces in the main continued. It found an unexpected sequel during the course of the war with Japan, for, while the Germans remained aloof from the Russian movement towards revolution, the other nationalities in the Provinces embraced it.

Towards the close of the year a violent revolution broke out in Riga, where a great industrial population, partly non-Baltic in race, had recently sprung up. Spreading rapidly to the country districts, it assumed the form of an anti-German war, directed against pastors and other Germans as well as against the great proprietors. The outbreak was put down by military force; and thousands of lives were exacted for the 200 mansions destroyed. The Government endeavoured

to guard against a recurrence by strengthening the Germans and by consulting the Provinces on reform.

It is difficult to determine with any confidence how far this social propagandism approached or concealed treason. The hope of many Germans within and without the Baltic Provinces that Germany would in the future regain her lost colonies had been evident for generations, but proof of any disloyal intrigue against the reigning Tsar appears to be lacking. It must not be forgotten that the Baltic Germans enjoyed a position of power and privilege which, given any reasonable personal security, they would be loath to jeopardize, while the relations between Russia and Germany were always carried on officially in a tone of traditional friendship which must have rendered exceptionally difficult any imperial conspiracy against the Tsar. But the growth of German nationalism and power certainly caused German popular sentiment to be stirred by the fate of the Baltic Germans, and the German Orders in which some of these were comprised adopted language and insignia such as could not but offend the sensitive nationalism of Russia. Amid the disorders of 1905 hints were given that Germany's quiescence regarding the Baltic Provinces had depended upon Russia's non-interference with her policy, and that under certain conditions those provinces might form her compensation for concessions elsewhere.

III. SOCIAL AND POLITICAL CONDITIONS

(1) POLITICAL

Government of the Baltic Provinces

PRIOR to the war, Courland, Livonia, and Esthonia formed three 'Governments' of the Russian Empire, divided in the usual way into 'districts'. The three Governments constituted the Postal Division of Riga and formed a part of the Juridical Division of Petrograd. Esthonia and Livonia without the Riga district belonged for military purposes to Petrograd; Riga and Courland, to Vilna. Each had at its head a Governor appointed by the Tsar and subjected to the supervision of the Senate, to whom appeals could be made. The towns were Russian, organized for self-government on the basis of a property qualification, and endowed with a permanent assembly which the citizens elected and against which they could appeal. But in place of the *zemstvo* and the *mir* the Provinces possessed peasant communes grouped together with the manor to which they originally belonged, thus forming a composite unit; and of these units usually from eight to twelve were combined into a parish. The peasant communes exercised a considerable measure of self-government under the control of the Russian officials. They had their own meetings, their own elected headman, courts, schools, rates, and poor relief, and they each appointed a delegate to the assembly of the parish. This contained also the proprietors of the manors and the local clergy, and elected the pastors, controlled the parochial schools, the rural doctors, and the roads.

The Province as a whole, however, was still represented by a Diet consisting simply of the proprietors of the manors. This purely aristocratic body retained the right of initiating civil and administrative decrees over a wide field. To it fell the right of proposing measures dealing with education, communications, and agriculture; and it possessed a far-reaching power of levying taxes upon the country-side and of expending their produce. Thus in Livonia some 900 proprietors acted for themselves and the remainder of the rural population, which included some 40,000 peasants holding land.

The sole exception to this German control of provincial government above the commune was offered by the towns, in which the assembly elected the mayor and town council, subject to confirmation by the Governor.

The Provinces, though never regarded internationally as in any way distinct from the mass of the Russian Empire, have preserved their own code of civil laws. These, like the institutions of local government, are less liberal than the Russian, notably in respect to the position of married women and of minors. Criminal law is substantially the same over the whole Empire. That the three Provinces have not been regarded as forming one corpus appears from their division for various purposes of government. Thus, besides the partition of Livonia for military purposes mentioned above, natives of Courland and Prussian subjects resident in that province had a special liability to summary expulsion in certain cases; while in Courland and Livonia foreign Jews had a conditional right of settlement, and special limitations were imposed upon the succession of foreigners to real estate.

The three Provinces of course received the normal representation of Russian subjects in the Duma, in accordance with the legislation of 1906 and 1907. With the exception of the army and of labourers in

small works who were not enrolled as lodgers, all law-abiding males over 25 years of age received the right to vote. But these, the primary voters, were divided into five classes according to their status and wealth; and the electors proper, chosen by them, were thus anything but a democratic body. The choice of the actual members of the Duma was, again, restricted by law. The net result in the Baltic Provinces has been that the Germans have enjoyed a representation disproportionate to their numbers and have formed a solid national clique independent of Russian parties. The native races in the large towns have elected Social Democrats, and the peasants have manifested little interest in the matter.

Literary Movement

The recent development of literary activity among the Esthonians and Letts deserves mention here, as an important expression of the growth of racial self-consciousness among these peoples. Esthonian literature is the product of the last two generations. It possesses a great store of folk-songs. Good literary work has also been done by the newspapers and journals, of which forty are published in Esthonian.

The literature of the Letts is slightly older, and considerably more voluminous. It possesses a genuine folk-poetry, and the output of poetry of other kinds is important. At the beginning of the war the Letts had sixty newspapers and journals of their own, one at least of which could boast a circulation of 100,000 copies.

(2) RELIGIOUS

When the Baltic Provinces were incorporated with Russia—Livonia and Esthonia in 1721, Courland in 1795—the whole population, German and native, belonged

to the Lutheran Church. But with the government of the Tsar came also the Orthodox Russian Church, of which he was the titular head; and, although he at once granted religious freedom, which theoretically has since prevailed, there was henceforward a new religious influence which tended to identify itself with the movement for spreading Russian institutions in the Baltic Provinces. The cross-currents of race and religion, of Lutheran and German as against Orthodox and Russian, which soon showed themselves, have considerably modified in practice the toleration originally granted and formally renewed in 1874. Orthodoxy and Lutheranism competed for the religious allegiance of the people. The struggle grew more acute after 1883, when it became the policy of the administration to represent the Orthodox Church as endangered by Lutheran propaganda. Mixed marriages were prohibited (1886) except where written guarantees were given that the children should be brought up in the Orthodox faith; and at the same period proceedings were taken against Lutheran pastors who recognized re-converts from the Orthodox Church.

The great majority of the population have, however, remained Protestant. The Lutheran Church is governed by its own Synod, and the parish assemblies elect the pastors.

(3) EDUCATIONAL

Since 1721 the educational system of the Provinces has been in the hands of the Russian Administration, and has not differed from that prevailing in other 'Governments', but the earlier period of German dominance has left its impress on higher education.

The University of Dorpat, founded in 1632 by Gustavus Adolphus, was a centre of German culture; and, although it disappeared for a time during the wars of

the eighteenth century, it was reinstated in 1802 by Alexander I on the model of a German University, and the monopoly of the Germans was not seriously challenged until the establishment of the German Empire antagonized the Russian Government. By 1889 Russian influence prevailed in the University, and German protest took the form of closing educational establishments which had provided higher education. No steps were taken by the Government to provide substitutes for these schools; and the Germans maintained that the spread of revolutionary ideas was the direct consequence of leaving the native races without suitable training at a time when they were exposed to the new influences of nationality and social democracy.

This protest was possibly not very disinterested, for the attack on German monopoly had meant a fresh opportunity for Lett and Esthonian; and their success in developing a more scientific agriculture, and in taking part in local government, in social organization, and in commerce, indicate talent and power remarkable after six centuries of repression. When the Revolution of 1905 caused a reaction against the native races, German institutions were again regarded with favour; and in 1906 a German Union came into being in each of the three provinces, partly with the object of founding new schools, and German was recognized as a permissible language of instruction in Baltic private schools.

IV. ECONOMIC CONDITIONS¹

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) Roads

ACCORDING to the official figures for 1911, Esthonia had then no paved roads but 3,000 miles of 'soil roads'; Livonia had 210 miles of the former and 7,500 of the latter; and Courland 112 miles of the former and 10,000 of the latter. If by 'soil roads' the same is to be understood in the Baltic Provinces as in central and southern Russia, the figures are discouraging, for an ordinary Russian 'soil road' (*gruntovy put*) is good only in dry summer weather or when hardened by frost in winter, and even then it rapidly deteriorates with use. But the roads of the Baltic Provinces are praised by the local authorities, and it may therefore be supposed that they belong to a better class.

Maps of course show only the more important roads, and of these there are few. Esthonia appears to be fairly well supplied, but the great expanse of Livonia, a land of marshes and streams, possesses few highways besides the main road from Riga to Pskov. Courland has many good roads except in the north-western district towards Domesnes Point, a region largely composed of sand. Mitau, which has no direct railway connection to the south, has a good road in the direction of Shavli and Tauroggen, along the southern portion of which there runs a narrow-gauge line.

¹ It must, of course, be understood that the conditions described in the text in the present tense are in general those obtaining before the war.

The roads, however, by the confession even of those who praise them, have been reduced to insignificance by the introduction of railways, while the rivers convey the lumber which is one of the most important products of the country. The islands, having no railways, depend for internal communication on apparently very defective roads; but the only important places on them, Kertel on Dagö and Arensburg on Ösel, have steamship communication with the mainland.

(b) Rivers and Canals

The numerous rivers of the Baltic Provinces are almost useless except for floating timber. The course of the Dvina, large as it is even among the great rivers of Russia, is obstructed by rapids; there is a bar at the mouth, and above Riga navigation is possible only to the smallest vessels, except on a spring flood. There is a little navigation on the Dvina for a few miles below Dvinsk, where it forms the boundary between Courland and the Government of Vitebsk on the east. The Courland Aa is navigable up to Mitau, but on an ordinary tide only for small vessels.

Steamer traffic is stated to exist on short stretches of rivers as follows: on the Windau, from Windau to Goldingen; on the Courland Aa, from Dünamünde (Ust Dvinsk) *via* Mitau to Bausk; on the Dvina, from the mouth to Uxküll; on the Salis (Zalis), which falls into the Gulf of Riga between Pernau and Riga, for a short distance; on the Narova, from Lake Peipus to the sea; on the Embakh (Embach), from Dorpat (Yuryev) to its entry into Lake Peipus.

There are two canals connecting the interior through the Pinsk marsh country with the Baltic: (1) the Berezina Canal to the Dvina (this system was never of any service except for floating timber, and is now becoming useless through the drying up of the lakes

that supply it); and (2) the Dnieper-Bug or 'Royal' Canal to the Dvina, which will take small vessels, but not steamers. The reports are not clear as to the length of artificial canal in these waterways; but it appears that the whole Berezina system is about 35 miles, and the Royal Canal 153 miles long. There have long been projects for making fresh canals, or at least for improving the Berezina system, but nothing has yet been done.

The canal at Libau, which connects the harbour with the inland lake or lagoon, is of old construction and of great importance. There is also a canal from the picturesque game-haunted Angern Lake to the sea at Windau.

Figures from Russian official sources show that Livonia has the best proportion of inland waterways—34 versts per 1,000 square versts of its area. Courland has 27 versts per 1,000 square versts; the total in Esthonia is negligible. The figures for Livonia and Courland are as follows:

| | <i>Navigable for rafts only. Miles.</i> | <i>Navigable up and down stream. Miles.</i> | <i>Navigable for steam vessels. Miles.</i> |
|----------------|---|---|--|
| Livonia . . . | 686 | 221 | 113 |
| Courland . . . | 319 | 116 | 102 |

Probably only one natural waterway would pay for development—the River Dvina, which has a good volume of water and, properly regulated, might carry a valuable traffic. It must not be forgotten, however, that all the inland waterways of the Baltic are closed by ice for some 4–5 months of the year, and this defect cannot be overcome.

(c) *Railways*

The general manner in which railways in Russia are controlled by the Government need only be lightly

touched on here. Two-thirds of the railways are now State-owned ; most of the rest are private, but can be bought by the Government after a period fixed by their special statutes. It must be remembered that many of the private lines have been constructed with the aid of Government subventions and have been granted loans free of interest. These go to lessen the purchase price when the lines are bought by the Government. Alike in their construction and their working, including the amount of and modes of raising capital, distribution of dividends, &c., private lines are subject to strict supervision on the part of the Ministers of Finance and of Ways and Communications, and likewise of a special Office of Control. Formerly private companies regulated their own rates, and competition between various lines, together with the tendency to favour particularly well-paying trades, produced such a chaos of different charges that in 1889 the Government intervened and appointed uniform zone-rates for all lines. This uniformity is, however, subject to modification where the Government thinks it well to give special encouragement to the export or import of particular kinds of goods.

Besides the Government and the private lines there is yet a third class known as 'local lines'. These, where destined for public use, seem to be under the same control as the private lines. Of such local lines, usually narrow-gauge and single-track, there seem to be many in the Baltic Provinces. They serve local markets and act as feeders to the larger lines.

The Baltic Provinces also contain parts of larger lines or systems of lines, of which some at least belong to the private class. In fact, with few exceptions, all the earlier lines were private ; but they were constructed with Government help or under a Government guarantee of dividends, and some have since been

bought up by the Government. Many of them were comparatively short stretches, but have now become, by fusion, sections of trunk lines ; for instance, the Riga-Pskov Railway was at first a separate Government line.

The railway system in the Baltic Provinces had in 1913 a total length of 1,400 miles, very little for an area of about 36,000 square miles (about two-thirds the size of England), even if it is remembered that much of this area is but moor and marsh. Accordingly we find that there are no adequate railway facilities for the carriage of the local timber to Riga, or of the great Livonian dairy produce to Petrograd. Moreover, not all the total railway mileage is of normal gauge, and only a comparatively small proportion, confined to a few of the most important lines, has double tracks. Even the railway from Riga to Petrograd is single-tracked so far as it lies within the Baltic Provinces. The narrow-gauge railways are less inconvenient than might have been expected, both for passengers and goods, since the carriages are made much wider than the gauge.

The main railways serving the Baltic Provinces are :

State: (a) the North-Western Railway, connecting Riga with Pskov and Petrograd, and Revel with Petrograd ;

(b) the Riga-Orel Railway, connecting Riga *via* Dvinsk and Smolensk with south-western Russia ;

(c) the Libau-Romny Railway, connecting Libau *via* Vilna and Minsk with south-western Russia, Romny being in the Government of Poltava ;

Private: (d) the Windau-Moscow Railway, *via* Mitau and Kreuzburg (Kreitsburg), which has immensely increased the importance of Windau.

The cross lines, running in general north and south, though they feed the main lines, seem largely to belong to local companies, e. g. the Libau-Hasenpot Railway,

the Livonia District (Poduyezdny) Railway, and the Mitau Railway.

The railway communications may be grouped as follows :

(1) From Revel a single-track line runs east by Taps and Narva to Petrograd, with two short branches to the Gulf coast, one from Wesenberg (Vezenberg) to Port Kunda and the other from Sonda to Asserien (Azeri). Two single tracks connect Revel with Walk (Valk), one going off at Taps through Dorpat, and the other to the west by way of Allenküll (Allenkyulya) and Fellin, the latter connecting with the Pernau-Walk line, which from Pernau to the junction is of 29-inch gauge. From Allenküll there is a short line to Weissenstein (Veisenshtein). A single line goes south-west from Revel to Hapsal, having a branch from Kegel to Baltisch Port.

(2) Walk is the great railway centre of Livonia. The lines from Revel and Pernau enter from the north. Eastwards a single track goes by Neuhausen (Neigauzen) to Pskov, whence are connections with Petrograd and Moscow. To the south-east as far as Marienburg, and then to the south-west, a 29-inch track covers the 148 miles to Shtokmanshof (Stockmannshof), where it joins the Riga-Dvinsk Railway. A more direct route to Riga is the single line *via* Wolmar (Volmar); at Wolmar, too, a track of 29-inch gauge goes to Hainasch (Khainash) on the west coast, and on the other side to Smiltē, 17 miles farther inland.

(3) Riga is an important terminus. The line from Walk enters on the north-east. To the south-east goes a double line *via* Kreuzburg to Dvinsk, Vitebsk, Smolensk, Orel, and Moscow. A stretch of single line connects Riga with Mitau to the south, while another single line going west connects at Tuksum with the Windau-Mitau Railway, which is continued *via* Kreuzburg to Moscow. From Mitau, again, a single track

goes south-west to meet the Libau-Dvinsk line at Muravyevo. Of this latter line only the first 42 miles and the last 21 miles pass through Courland.

(4) From Libau a line of metre gauge runs 30 miles north-east to Hasenpot, while a direct single-track line skirts the coast southwards to Memel. Another connection with the last town is given by a branch which leaves the Libau-Shavli line about 25 miles east of Libau and runs south through Schkudy (Shkudi), joining the coast track a little distance above Memel.

A stretch of perhaps 12 miles of the double line from Vilna to Dvinsk, immediately south of the latter town, falls within the boundary of Courland, but hardly belongs to the system.

A proposed railway from Mitau to Ponevyej would be of considerable service to southern Courland, and would at the same time afford a route from Riga to western Europe 70 miles shorter than that which passes through Dvinsk. The same end has been gained by the recent joining up of Mitau with the line to Shavli (see p. 38).

Attention may be called to the important positions as railway junctions occupied by Walk in Livonia, and by the neighbourhood of Kreuzburg on the right bank of the Dvina just beyond the eastern boundary of Courland.

From the above account it will be apparent that considerable areas of the Baltic Provinces are ill-supplied with railway communication, while the predominance of the single track and of the various narrow gauges accentuates the deficiency. This is met, to some extent, by coasting steamers.

The official figures for traffic relate in all cases to whole railway systems, so that it is impossible to ascertain the share properly belonging to the Provinces. It may be said, however, that the ratio of expenses to receipts has been largely reduced.

The one private main railway connected with the Baltic Provinces—the Moscow–Windau line, which has done so much for the communications of Windau, and for the development of the port itself—has received at different times from the Government gifts and loans free of interest or on specially favourable terms. It has also raised loans of about £11,000,000, open to the general European market and quoted in London, Berlin, and Amsterdam; a loan of 31,000,000 francs from Paris and Brussels; and loans, dealt with in Petrograd alone, of 75,000,000 roubles. Its concession runs to 1955.

The only loan-burdened State railway in the Baltic Provinces is the Riga–Dvinsk line, which forms part of the Riga–Orel system. Of this loan a sum of 7,300,000 gold roubles was still owing in 1911. The stock is quoted in London, Paris, Berlin, and Amsterdam.

According to recent information as to railway development in Courland and the bordering Government of Kovno, there were several proposals for new construction and the improvement of existing lines, which are at present postponed. The line from Mitau to Shavli was to be doubled; this line has been constructed since the occupation of the Provinces by the Germans, and gives Riga a long-desired connection in a south-westerly direction. The line Mitau–Muravyevo was also to be made double-track. It was also proposed that several new lines should be constructed in Courland. A line was to be built from Kugeleit running in a northerly direction *via* Muravyevo and Stenden to Domesnes, the headland at the entrance of the Gulf of Riga. Another line was to run westward from Tukku via Neuenburg to Altautz. A third line was to connect Hasenpot and Tukku *via* Goldingen. The completion of these lines would provide the western and northern portions of Courland, which at present are

almost without reasonable means of communication, with a suitable network of railways.

(d) *Posts, Telegraphs, and Telephones*

For Russian posts and telegraphs generally, see *The Ukraine*, No. 52 in this series, p. 65.)

It is stated on reliable authority that a good network of telephones exists in Courland, but detailed information is not available. The Riga Telephone Company gives an excellent and cheap service within that town, to the neighbouring summer resorts, to most places of any consequence in Livonia, and also to Mitau in Courland.

(2) EXTERNAL

(a) *Ports*

(i) *Accommodation*.—The Provinces possess four considerable ports, viz. Revel on the Gulf of Finland, Riga on the Gulf of Riga, and Windau and Libau on the Baltic coast; there are a few others of minor importance. All are affected to some degree by ice in the winter, but this obstruction has been greatly reduced by the use of ice-breakers. Libau, indeed, which is the most southerly port, may be regarded as open all the year round, but Revel, the most northerly, though freer from ice than other harbours of the class on the Gulf of Finland, is frozen up for from three to four months and must be kept open by ice-breakers. Riga, though frozen on the average for 127 days in the year, succeeds by the same means in keeping navigation uninterrupted, save for a few days now and then, when a high wind drives ice-blocks into the channel. At Windau, the river which forms the inner harbour is frozen till the end of March, but ice-breakers keep the outer harbour clear. At all these ports, then, a winter service can be maintained by steamers.

Among the lesser ports Dünamünde (Ust Dvinsk) and Pernau are also equipped with ice-breakers.

The ports are distributed among the Provinces as follows :

Esthonia

On the coast of the Gulf of Finland are Kunda, Revel, and Baltisch Port ; on the Baltic side, opposite the islands, is Hapsal. Kunda is merely a small port serving the local cement works, and large vessels must anchor near the entrance. Baltisch Port has a mean depth in the harbour of 18 feet and can accommodate only a few small vessels ; but not being as a rule ice-bound for more than a month, it is in a position to relieve, to some extent, the winter restriction upon Revel, with which it is connected by rail. Hapsal admits only vessels of not more than 10 feet draught, and then by a dredged channel ; its trade is insignificant. The harbour is frozen for from three to four months.

The principal port is, of course, Revel or Reval, which has both a naval and a commercial harbour. The latter, which is the inner harbour, is 700 yards from east to west, and is divided by a mole into two basins from 17 to 28 feet deep. The Government also owns a floating dock and a slip which will take vessels up to 350 feet in length and 20 feet draught. The trade of the port is really larger than its capacity would suggest, so that its facilities might be increased with advantage.

Livonia

The ports of Livonia are on the Gulf of Riga. Pernau, in the north-east corner, is on a river, at the entrance to which are two parallel moles about a mile long and 350 yards apart. By dredging the accumulating silt

a depth of 17 feet is maintained in the middle of the river. There is a winter harbour 10–12 feet deep on the left bank below the town, while two quays, about 200 yards long, and a floating bridge are used for loading; large vessels must take in cargo from lighters in the roadstead. There are good facilities for discharging coal, but the port as a whole is not suited to a large traffic.

Two ports break the way to Riga on the Dvina. Dünamünde (Ust Dvinsk) is at the mouth of the river, $6\frac{1}{2}$ miles below Riga, and has an outer basin, two floating docks taking vessels up to 300 feet in length and 17 feet draught, and a slip for vessels up to 2,000 tons. An inner winter harbour will accommodate 300 ships. The other port, Mühlgraben (Myulgraben), about five miles from Riga, has a big harbour and is much used by large steamers for the import of rails and for the export of mineral oils.

From the mouth, where is a bar with a shifting channel, up to Riga the river is constantly being dredged, but the heaviest ship which has yet reached that port had a draught of 21 feet. This depth, however, is expected to be considerably increased. The harbours on the Dvina are accepted as adequate on the whole and properly equipped; all sorts of shipping repairs can be executed at Riga, where also cylinders, boilers, shafts, and boats are constructed. Riga, however, still depends upon human labour for the discharging of coal, and proposals for the substitution of mechanical means had not, by 1913, taken practical shape.

About half-way between Pernau and the Dvina is the port of Hainasch (Khainash), which, however, is insignificant, having an approach only 10 feet deep and insufficient shelter.

Courland

Windau, in the north of Courland, is another river port, where the outer harbour is formed, at the entrance to the river of the same name, by two parallel moles about a mile long and 375 yards apart. A channel dredged to 25 feet leads to the inner harbour abreast of the town. Here on the north side is a spacious quay with full modern equipment and a depth of water alongside which varies from 8 to 25 feet. The town is on the south side and also has extensive quays. On this side, too, over a mile from the entrance, is the winter harbour with a depth of 13 feet. The river banks are steep and vessels drawing from 18 to 21 feet can lie close in shore. The port and railway accommodation is being further improved. There is extensive cold storage for butter, game, poultry, &c.

Libau is the most considerable of all the ports in the Provinces, though, like Revel, somewhat hampered by the restrictions due to its being also a naval harbour. Because of these restrictions many merchantmen prefer Windau. Libau stands at the northern end of a narrow strip of land enclosing Libau Lake, and the canal to this lake, which passes through the middle of the town, forms the 'old harbour', a mile long and 23 feet deep, used by coasting vessels. The great artificial harbour outside is nearly three miles from north to south and over a mile wide, with three entrances. Within is the commercial harbour to the south, a basin a mile long and 1,000 yards wide; the northern part is the naval harbour, which again encloses a small 'provisional harbour', while a short canal leads from the latter to a deep basin and dry docks. Work on the moles and breakwater is still in progress. Vessels up to 7,500 tons can be berthed alongside the quays of the commercial harbour, which possesses the usual appliances for dealing

with cargo. The accommodation as a whole seems to be adequate, while there are facilities for all sorts of repairs and for the construction of cylinders, shafts, boats, and masts.

(ii) *Nature and Volume of Trade.*—The ports of the Provinces are outlets on the west for Russia as a whole ; their exports, accordingly, are drawn from a very wide area. For example, much of the timber that was exported from Riga came from Volhynia and White Russia ; much of its flax and flax-seed from the western provinces ; its bacon, which was increasing annually in amount, from the interior ; and its main consignment of wool from central Russia and Siberia. Thus it is because of its great railway facilities to the east and the south-east that in total turnover for 1913 Riga exceeded Petrograd and Kronstadt ; the Riga district of itself is neither thickly populated nor very rich in natural resources. The expansion of Libau followed on its direct connection by rail with the chief grain-producing regions of Russia, enabling it to divert an export trade that previously had gone to Königsberg in East Prussia. Windau, again, has no local product of any significance except timber, and is mainly occupied with a transit trade ; it is the principal outlet for the butter industry of Siberia. Its trade greatly increased after the Windau-Moscow Railway extended its railway and port accommodation. The order of importance of the chief ports, as fixed by their export returns, is Riga, Windau, Libau, Revel, Pernau. The last is greatly hampered by the narrow gauge of its railway and unfavourable railway rates, and was on the down grade even before the war.

The same general considerations apply to the import trade, which is mainly in transit to other centres. Riga, however, normally imported more for local industries than did the other ports, and had rather less

of transit trade to interior provinces. Of the chemical fertilizers imported into the country as a whole, 32 per cent. came through Riga and 23 per cent. through Libau. Again, of the total Russian import of vegetable dyes, Riga and Libau between them accounted for over 75 per cent. Nearly all the agricultural machinery from the United States entered Russia through Windau, and most of the merchandise reaching that port was in transit to eastern Russia and Siberia. In this respect Windau enjoyed an advantage over Libau, inasmuch as freight charges on the privately owned railway from Windau to Riga were easier than similar charges from Libau.

On the whole about a quarter of the foreign trade of all Russia passed through the four chief ports, Riga, Revel, Libau, and Windau. Riga, indeed, in 1912 accounted for no less than $14\frac{1}{2}$ per cent. of the total, a share which in 1913 had risen to 17 per cent.¹

Statistics of shipping for the five chief ports are given below in the Appendix (Table I).

(b) *Shipping Lines*

The British ship-owners or shipping agencies which in normal times maintain a regular service to ports of the Baltic Provinces are as follows :

The United Shipping Company, London, which sends weekly to Riga, Libau, and (in conjunction with the Wilson Line) to Revel.

The Wilson Line, Hull, which sends weekly to Riga and (in conjunction with the Russian North-Western Steamship Co.) to Libau.

Nielsen, Andersen & Co., who send regularly to Libau.

There are also numerous tramp steamers which run as often as cargo offers (usually weekly) from the

¹ For further details, see below under *Exports* and *Imports*, pp. 67 and 70.

principal ports of the United Kingdom to Riga, Revel, and Windau.

Of Russian owners there are :

The Baltischer Lloyd at Libau, with one steamer of 4,000 tons.

Helmsing & Grimm at Riga, who own five steamers ranging from 1,400 to 2,400 tons, and are also managers for :

(1) The Riga Schnell dampfschiff-Gesellschaft (two steamers of 1,300 tons).

(2) The Russisch-Baltische Dampfschiff-Gesellschaft (seven steamers of 3,000–4,000 tons).

The Revel Shipping Company, with one steamer of 1,100 tons and some smaller ones.

The Riga Börsen Comité, with one steamer of 1,200 tons.

The Baltic Line (now part of the Russian East Asiatic Company, of Petrograd), with two steamers of 1,700 tons.

The Russian-American Line, with several ships of 7,000 or 8,000 tons taking emigrants from Libau to America.

The Russian North-Western Steamship Company, with two steamers of 1,700 tons.

The West Russian Steamship Company (at Petrograd), with eight steamers of between 3,000 and 4,000 tons.

These services appear to be adequate.

(c) Cable and Wireless Communications

There is a cable from Libau to Bornholm Island (Danish) and Copenhagen ; this is the usual route of communication between the Baltic Provinces and western Europe. There is also a cable from Libau to the island of Öland (Swedish). There are purely Russian cables from Revel to Riga and to Helsingfors, and from Libau to Petrograd.

There are wireless stations on the Telefunken and Marconi systems, with a working radius of about 120 miles, at Libau, Revel, and Riga ; also one, for official use only, at Hapsal.

(B) INDUSTRY

(1) LABOUR

(a) *Supply of Labour ; Emigration*

The distribution of employment, as it was at the beginning of this century, can be seen in the following table :

| <i>Employments.</i> | <i>Esthonia. Per cent.</i> | <i>Livonia. Per cent.</i> | <i>Courland. Per cent.</i> |
|---|--------------------------------|-------------------------------|--------------------------------|
| Farming | 60.3 | 55.4 | 58.3 |
| Industrial, metallurgical, manufatures | 14.6 | 19.7 | 14.2 |
| Traffic and communications | 3.0 | 2.5 | 2.4 |
| Trade | 3.0 | 4.9 | 5.7 |
| Administrative, party ser- vice, free professions | 2.6 | 2.7 | 2.7 |
| Defence forces | 1.7 | 1.0 | 2.7 |
| Private activities, servants, journeymen, &c. | 10.3 | 8.9 | 9.1 |
| Guaranteed by private means, and in receipt of means of existence from the State and from private individuals | 3.7 | 4.3 | 4.6 |
| Undefined, unknown employ- ment | 0.8 | 0.6 | 0.3 |

Since the compilation of this table, however, the importance of agriculture has fallen, and that of industry has increased.

There is a large supply of labourers both for country and town. They are industrious and intelligent, and about three-quarters of them are able to read and write, village schools having been established for over a century. The activity of the best peasants has brought

nearly all the land designated for peasant land by the Emancipation Act of 1817 (see below, p. 54) into comparatively few hands, and far the greater part of the peasant class finds itself at variance with this select class of peasants, being wholly unable, for want of capital, to rise to the same economic level. Great numbers, therefore, migrate into the towns. Those who remain in the country are hired by the prosperous peasant-farmers or the 'barons'; their wages tend to be lowered to 7*d.* or 8*d.* a day by the immigration of ignorant and penniless Lithuanians.

In the towns, the immigrant peasants, besides getting higher wages, come under the protection, in theory most complete, of the Russian factory laws. Both they and the country labourers feel themselves a proletariat and read social democratic papers and form political organizations—these being directed almost as much against the prosperous peasant-farmers or the non-German bourgeoisie of the towns as against the German barons and the German bourgeoisie. The proletariat is all the stronger because German and non-German bourgeoisie will not amalgamate; the latter have now acquired much house property in the towns, which gives them a vote and enables them to master the town councils. The Lutheran clergy, being the nominees of the barons (who mostly appoint Germans), exercise little influence.

Emigration, sometimes forcibly restrained by the Government, is caused mainly by the development of capitalized agriculture, which forces the small farmer and poor peasant to leave the country; the chief element in the numbers of emigrants is the landless workman. Emigration flows chiefly to the Russian governments of Pskov, Petrograd, Novgorod, and Vologda, to Siberia, and to the United States. In many cases the emigrants become more prosperous than the

original inhabitants of the territory in which they settle. They cling closely together, forming quite compact colonies, maintaining their native language and their interest in their country. There is also a considerable emigration of the more intelligent and skilled type of workers and other professional men to Petrograd and other industrial centres. The lower classes, particularly among the Letts, make excellent workmen; in many Russian commercial towns there is a constant demand for skilled Lett and Esthonian artisans. The inhabitants of the Baltic Provinces make better immigrants than the Lithuanians, but they do not emigrate in nearly such large numbers.

(b) Labour Conditions

Wages are nowhere high, amounting at the best to 200–300 roubles a year in the country, and perhaps to 1·50 roubles a day for unskilled labour in Riga, a large enough sum to secure a satisfactory supply of potatoes and herrings, which constitute a fairly constant food. Peasants still get seed from the barons, and pay with part of the harvest. There are no village or common lands, so that the landless peasants work for hire on the land or find employment in the towns.

(2) AGRICULTURE

(a) Products of Commercial Value

The arable land, which is only about 10 per cent. of the whole in Esthonia and 18 per cent. in Livonia, is about 25 per cent. in Courland. It is now being converted to some extent into pasture-land, as the farmers are unable to compete with those parts of Russia where cereals are more cheaply grown, and have

also to meet a somewhat artificial competition from Germany.

The products in the order of their importance are rye, which greatly preponderates and is nearly all winter-sown, oats, barley, and wheat, both winter and spring-sown. Wheat is mostly grown in Courland, owing to its higher temperature and to its possession of two fertile tracts—the chief being that round Mitau. The sandy soil of much of Courland is turned to account in kitchen-gardens, of which the produce finds good markets in the large towns of the provinces and in Petrograd. Flax is commercially the most valuable crop and is most extensively grown in Livonia, which spins a considerable part at home and exports the rest as fibre and as linseed. Potatoes are an important product of all the provinces, but they are chiefly used for the distillation of alcohol.

It has been calculated that the cereals of the Baltic Provinces are only enough to supply half their needs, since the industrial population is a very large one. Yet large quantities, especially of the Courland wheat, are exported, and the deficiency is made up in rye imported from Germany or South Russia.

Of other crops, there are several kinds of good forage grasses. Clover and timothy grass (*Phleum palustre*) are especially common in Esthonia. There is a great opportunity for expansion in this direction, particularly in marshy and peaty areas.

There are vineyards in Livonia, but these are of very small importance.

The following tables give official statistics showing (a) the acreage sown with the principal crops in the three provinces, and (b) the production in tons, for the period 1901–10 (average) and for the year 1914:

ACREAGE OF PRINCIPAL CROPS

| | <i>Livonia.</i> | | <i>Courland.</i> | | <i>Ave</i> 1901 | |
|-------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|--------------------|---------|
| | <i>Average.</i> 1901-10. | <i>Year.</i> 1914. | <i>Average.</i> 1901-10. | <i>Year.</i> 1914. | | |
| | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | | |
| Rye . . . | 425,000 | 405,000 | 356,000 | 348,000 | 168 | |
| Oats . . . | 456,000 | 467,000 | 386,000 | 403,000 | 113 | |
| Barley . . . | 376,000 | 341,000 | 199,000 | 186,000 | 121 | |
| Wheat . . . | 32,000 | 25,000 | 81,000 | 72,000 | 9 | |
| Peas . . . | 25,000 | 22,000 | 28,000 | 24,000 | 7 | |
| Lentils and beans | 2,000 | 1,700 | 5,000 | 6,000 | 700 | 700 |
| Potatoes . . . | 129,000 | 132,000 | 78,000 | 86,000 | 109,000 | 100,000 |
| Linseed . . . | 200,000 | 146,000 | 45,000 | 31,000 | 11,000 | 7,000 |
| Hemp-seed . . . | 1,800 | 750 | 600 | — | 120 | — |

PRODUCTION IN TONS OF PRINCIPAL CROPS

| | <i>Livonia.</i> | | <i>Courland.</i> | | <i>Esthonia.</i> | |
|-------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|
| | <i>Average.</i> 1901-10. | <i>Year.</i> 1914. | <i>Average.</i> 1901-10. | <i>Year.</i> 1914. | <i>Average.</i> 1901-10. | <i>Year.</i> 1914. |
| | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> |
| Rye . . . | 169,000 | 196,000 | 141,000 | 142,000 | 68,000 | 69,000 |
| Oats . . . | 139,000 | 90,000 | 135,000 | 93,000 | 37,000 | 20,500 |
| Barley . . . | 136,000 | 64,000 | 76,000 | 45,000 | 48,000 | 22,000 |
| Wheat . . . | 12,000 | 9,000 | 37,000 | 36,000 | 4,000 | 3,500 |
| Peas . . . | 7,000 | 2,500 | 9,000 | 4,000 | 2,500 | 600 |
| Lentils and beans | 650 | 200 | 1,900 | 1,300 | 250 | 150 |
| Potatoes . . . | 443,000 | 390,000 | 267,000 | 241,000 | 434,000 | 290,000 |
| Linseed . . . | 26,000 | 10,500 | 7,000 | 3,000 | 1,700 | 460 |
| Hemp-seed . . . | 300 | 70 | 130 | — | 20 | — |

Live-stock.—For the year 1913 returns are as follows :

| | <i>Horses.</i> | <i>Cattle.</i> | <i>Sheep.</i> | | <i>Goats.</i> | <i>Swine.</i> |
|--------------|----------------|----------------|---------------------|-------------------|---------------|---------------|
| | | | <i>Coarse Wool.</i> | <i>Fine Wool.</i> | | |
| Livonia . . | 180,000 | 548,000 | 341,000 | 183,000 | 1,500 | 291,000 |
| Courland . . | 141,000 | 349,000 | 243,000 | 63,000 | 900 | 204,000 |
| Esthonia . . | 71,000 | 177,000 | 113,000 | 42,000 | 100 | 66,000 |

The proportion of fine-wool sheep to coarse-wool sheep is exceeded only in the Polish provinces, and only distantly approached in the Russian Steppe ; elsewhere the coarse kind predominates enormously. The head of live-stock of every kind per hundred inhabitants is higher than in any other part of Russia. Dairy-farming is carried on energetically.

(b) Methods of Cultivation

Much good agricultural work has been done in the Baltic Provinces. The methods of cultivation are intensive and the best has generally been made of an only moderately fertile soil; in fact, the yield is as good as the best in Russia, and approaches that of Germany. The equipment is good, ample artificial manure is used, and a many-field rotation, which includes root and grass crops, is the rule.

Attempts to drain the numerous marshes have been only partially successful, but the sand-dunes of the Courland peninsula, which threatened to overwhelm the soil, have been successfully consolidated by planting.

Agricultural societies are numerous, those of a province being grouped in a union. As is generally the case throughout the rest of Russia, these societies serve many useful purposes: thus they organize agricultural savings banks, or deal on the co-operative system in dairy products, or purchase agricultural machinery for the use of their members, and promote the use of artificial fertilizers or new varieties of seeds; they also pay for instructors and organize annual agricultural exhibitions, such as the annual summer show at Dorpat (Yuryev). These societies are the more needed, as the local councils (*zemstvos*), which elsewhere in Russia perform many of the functions above mentioned, are forbidden in frontier provinces.

While the actual methods of cultivation are satisfactory, the possibilities of the country, so far as Courland and Livonia are concerned, are not considered to have been by any means fully exploited. All German literature dealing with these provinces treats them as suitable for considerable further settlement, and discusses the desirability of planting German small

farmers on the soil. Their conclusions are drawn from the two following outstanding facts: (1) The land under plough in Courland and Livonia is at present only 20 per cent. of the whole surface, while in the neighbouring Prussian provinces, where the general fertility of the soil and other conditions are about equal, 50 per cent. of the surface is arable land. (2) The two provinces in question are only half as thickly settled as the neighbouring Prussian provinces.

Even before the war the Russian Government made efforts, with the assistance of the Peasants' Land Bank, to settle Russian peasants in the Baltic countries. After the Lettish Revolution in 1905, some 15,000 German settlers are stated to have been 'quietly' introduced into the country. The former Lettish farms were broken up into smaller ones of an average size of 35 to 50 acres. German authorities state that a holding of 25 to 30 acres is the average unit of economic utility in Courland, while in the neighbourhood of the country towns a holding of $7\frac{1}{2}$ to $12\frac{1}{2}$ acres is sufficiently large to maintain the owner.

(c) *Forestry*

The present condition of the forests in the Provinces is uncertain, but information goes to show that they have been seriously reduced in extent. In 1913 it was reported that the forests along the Dvina were gradually becoming exhausted and that Riga was depending more and more for her export of sleepers upon timber brought by rail from other districts. Extensive cutting in the course of the war, alike for fuel and military purposes, seems to have made further serious inroads upon the forest area. These considerations must qualify the following account, which is based upon conditions prevailing some years before the outbreak of war.

Forests form about one-third of the total area, and are especially extensive in Courland. In 1909 Esthonia had 3,400 *desyatines*¹ of State forests and 308,500 of private forests; Livonia had 196,000 *desyatines* of State forests and 667,000 of private forests; Courland had 390,000 *desyatines* of State forests and 430,000 of private forests.

In Esthonia the forests are chiefly coniferous; in Livonia and Courland they are coniferous and deciduous mixed. Firs and pines are abundant in the latter, especially along the upper course of the Livonian Aa and on both banks of the Dvina, also around the town of Revel; there are in addition many spruces, silver-leaved firs, and larches. Of deciduous trees the chief varieties are elm, lime (the inner bark of which is largely used for the domestic mat industry), birch, alder, sycamore, and poplar. Oaks are not common.

The best-known forests are the Dondangen, in the Courland district of Windau, and the Luhde, south of the town of Walk. There are other extensive masses of wood north of Verro, along the Livonian coast south of the mouth of the Salis, along both sides of the Western Dvina from below Jakobstadt to beyond Friedrichstadt, and to the east of Goldingen in the district of that name.

The soft wood which the forests provide in abundance is the raw material of the wood-pulp industry, which is of such great importance in the Baltic Provinces; the timber also is largely used for fuel, though not in the factories, which use coal. Practically none of the forest is in peasant hands. It is divided between the State and the large proprietors, and on the whole is intelligently regulated and used. The State not only controls its own forests, but it also has a special department, which inspects other forests, to see that

¹ One *desyatine* = 2.7 acres.

they are properly preserved by replanting, and not recklessly exploited. The State periodically assigns portions of the State forests to be leased by auction for felling at a minimum reserve price, which is generally exceeded; some portions, however, are apparently allowed to be felled without payment.

The State forests of Esthonia, which are of small extent, are carried on at a considerable loss, but in Livonia and Courland there is a net profit of 3-6 roubles per *desyatine*. The value of the wooded area is considerably increased by the number of rivers which act as highways for the timber to the various ports. In the early spring the rivers are one mass of rafts and floating logs. Though a great deal has been done to regulate and improve the timber trade, there still remains much to be done in scientific forestry, both for developing future supplies of certain trees, and for making the best and most immediate use of the large existing stocks; the drainage of marshy areas would have a beneficent effect upon many forest districts.

(d) *Land Tenure*

Precise information is not attainable. Local authorities familiar with the matter use legal terms which they do not define, while authors outside the Provinces, even if officials of the Ministry of Agriculture, are so totally unfamiliar with a system quite different from their own, that they use misleading terms.

Emancipation in the Baltic Provinces preceded that in Russia proper by nearly half a century, but the terms are not easy to discover. Certainly the peasants of these provinces did not receive pieces of the land (*nadyel*) with the obligation, customary in other parts of Russia, to pay a certain sum yearly till the landlords' rights should be bought out; but a certain part of the land (seemingly about one-third) was marked out

for the peasant class in general, and on this they were allowed to settle as lessees with the possibility of becoming owners ultimately on favourable terms. The peasants, or rather the most fortunate and energetic section of them, have now become owners of practically all the peasant-land, and have even bought some 2 per cent. to 5 per cent. of the landlords' or barons' own land. The barons, however, are no mere idle rent-chargers, simply selling all they can and leasing the rest, as is so often the case in Russia, but energetic and thrifty cultivators and exporters. Their land is highly capitalized, and is cultivated upon the most modern scientific lines. In Courland some 650 of them own and cultivate estates of the average size of 4,000 acres, though a few estates, containing much barren land, vastly exceed this size. Nine noble families in Courland own one-fifth of the available land. It is probable that the area of peasant-land in the Baltic Provinces amounts to between 40 and 43 per cent. of all the land, and that the number of peasant cultivators does not exceed 100,000. The peasant-land suffers from having less scientific organization, though a great deal of help has been given by co-operative societies. The prosperous peasant-farmer class, forming about two-ninths of the whole peasantry, have 60-90 acres on the average and employ perhaps 5 or 6 hired labourers each ; another ninth have very small portions which they cultivate themselves, working harder and earning scarcely more than the hired labourers ; the rest of the peasantry are hired labourers, who often move into the towns, especially as numbers of indigent Lithuanians migrate into the Baltic Provinces and make agricultural wages lower. Such at least is the account given of the Letts, who form the whole peasant population of Courland and half that of Livonia.

(3) FISHERIES

There is a great deal of sea-fishing, particularly for pilchards, both in the Gulfs of Finland and Riga and in the Baltic. Fishing affords a partial livelihood to a large number of persons in the districts about the western side of Lake Peipus, and is also carried on in Lakes Verro and Angern. Many varieties of fish swarm in the Dvina and to a less extent in the other larger rivers. Salmon of a coarse kind are caught in the estuaries; Narva is famous for its lampreys (*minoga*) as well. Other kinds of fish are smelt, large sheat-fish (*som*), a kind of carp (*karas*), Baltic herring, cod, tench, flounders, eels, and a small fish like the sardine, for a famous conserve of which Revel is noted. Of late sea-fishing has been practised in motor-boats as well as in sailing vessels. Fish-rearing in ponds has been started and is slowly growing; technical instruction in the subject is given. Sealing forms a livelihood for the Swedish fishermen on the island of Runö.

Most of the fish is consumed locally, either fresh or salted. But canned salmon and the preserved sardines from Revel are exported. The official returns for 1915 gave a total value for these fisheries of 840,000 roubles.

(4) MINERALS

The minerals of these provinces are neither extensive nor valuable; they are nearly all in Courland. Lignite and bog-iron exist, but are no longer worked; the industries of the country are bound to import large foreign supplies of both iron ore and coal. Limestone is found particularly in Ösel, and along the banks of the Dvina, between Stockmannshof and Grütershof, and sandstone appears in 'Livonian Switzerland' and elsewhere. Chalk, gypsum, and clay occur in the Bauske district of Courland; clay exists also in

considerable quantities in the Wesenberg and Weissenstein districts of Esthonia. Of the clay, bricks are made for the use of large towns in the district; the gypsum and chalk are pounded into a fertilizer. North of Revel, at Wasalem, there are marble quarries.

There are immense masses of excellent peat in the low-lying marshy districts, and this is largely used both for fuel and manure.

Amber is found on the coast of Courland, particularly between Polangen and Pillau, either loose upon the shore, where it has been thrown up by the violence of the north and west winds, or in small hillocks of sand near the sea, where it lies in regular strata.

(5) MANUFACTURES

The predominant industries of the Provinces are those concerned with the preparation and working up of food products, including the manufacture of alcohol, beer, spirits, vegetable oils, &c. In consequence of the local supply of barley, there is in normal times a considerable output of beer, amounting to one-fifth of the whole Russian production. In 1912 there were 81 breweries in the province of Livonia alone, while there were 98 factories engaged in the production of alcohol. Riga and Libau accounted for the great majority of these concerns. Flour-milling is another important industry at Libau, which is the principal centre of the grain trade, and milling is carried on also in the neighbourhood of Revel. For these mills wheat and rye used to be imported from Germany, until the Russian Government placed an import duty on these grains. Libau, again, has a considerable bacon-curing business. The preparation of vegetable oils from linseed, &c., is concentrated in Riga, Libau, and Mitau. Tobacco is manufactured mainly at Riga, and in relatively small quantities at Libau and Windau.

The textile industries, which come next in importance, are concerned chiefly with cotton and flax products, and the principal centres are Riga and Mitau. These industries include cotton-spinning and the dressing and spinning of flax and hemp. There are cloth factories at Riga, which has gained a reputation therefrom, also at Pernau and Mitau and at Kertel on the island of Dagö.

Third in value of output are the metal industries, confined mainly to Riga, Libau, and Revel, all of which have extensive general engineering shops. The Riga and Revel districts are noted for their great electrical works and power-stations, and they possess also large wagon works. The Libau Steel and Iron Works were, before 1913, enlarging their undertakings and were said to have shipbuilding yards at both Revel and Riga. There are iron-works in the Talsen region on the west side of the Gulf of Riga.

Next in importance are the various chemical and allied industries, including the manufacture of wood-pulp and paper, in which Riga and Revel are again prominent. The most important of the chemical manufactures are those of colours and varnishes at Riga and Libau, and of matches at Riga and Revel. Cellulose is a product of Riga and Revel, and especially of Pernau, where is the largest wood-pulp mill in Russia, that of the Waldhof Sulphite Co., a branch of the great Waldhof paper-mill at Mannheim. Against this concern the other pulp mills found themselves unable to make a stand, so that it has gradually monopolized the trade, while the other mills took to the manufacture of paper from the pulp. The import duty on paper is prohibitive and the local cost of production very high. In Riga and the neighbourhood are five paper-mills, and three more in the province. These have almost a monopoly for this region.

Noteworthy among other businesses is the manufacture of leather, in a country where the climatic conditions make footgear a prime consideration. The leather industry itself is distributed between Riga, Mitau, Libau, Revel, and Arensburg on the island of Ösel, but the boot and shoe industry is concentrated in Riga. At Riga also are the works of the Provodnik Company, which had even begun to ship rubber shoes and automobile tyres to the United States. The rubber industry, indeed, before the war was expanding in a very marked degree ; one reason for this is that rubber shoes are very much used in this country even by the poorest class.

Cement is made in Riga, where it was a busy industry in 1913, and at Kunda and Asserien (Azeri) in Esthonia. There are several large veneering firms in Riga, and this trade was developing rapidly at Libau. Hasenpot and Mitau have brick-works. Some glass is made at Fellin in Livonia and at Talun. At Mitau there is a large preserving and canning factory. Dorpat has a furniture factory which is noted for its turn-out and has a special sales agency in Riga.

Livonia, as containing the great industrial city of Riga with 560,000 inhabitants as well as Pernau, is thus the most important industrial region ; and it possesses 70 per cent. (100,000) of the total number of factory hands in the province. Courland is next in importance, with 8,300 factory hands, Libau, its chief industrial town, having 91,000 inhabitants. In number of workers the metal industries come first with 28,000, and after these, textiles with 22,000, rubber and chemicals with 10,000, and paper and pulp with 7,000.

The figures for industrial production in 1908 (the latest procurable) are given below :

VALUES OF OUTPUT OF PRINCIPAL INDUSTRIES IN 1908

| | <i>Livonia.</i> | <i>Courland.</i> | <i>Esthonia.</i> |
|--------------------------------------|-----------------------------|------------------|------------------|
| | <i>In thousand roubles.</i> | | |
| Animal products | 4,813 | 1,485 | 251 |
| Beer, alcohol, and tobacco | 11,416 | 1,868 | 6,197 |
| Chemical industry | 35,551 | 1,726 | 1,561 |
| Food products | 11,620 | 9,548 | 5,632 |
| Metal industries | 34,811 | 6,867 | 6,164 |
| Mineral extraction | 5,125 | 1,255 | 1,472 |
| Mineral oil industry | 1,490 | — | — |
| Paper industries | 16,947 | 516 | 3,790 |
| Textiles | 21,339 | 2,577 | 31,092 |
| Wood industries | 11,476 | 2,486 | 2,892 |
| Total | 154,588 | 28,328 | 59,051 |

Livonia heads the list in every item except textiles. The preponderance which Esthonia shows in this branch is largely owing to the inclusion in the returns for that province of the important industries of Narva. This town is actually in the Petrograd Government of Great Russia, but the mills are manned and carried on mainly by Esthonians, the border line between the two provinces being only just west of the town. Its industry has been exclusively built up on its situation on the Narova river, which gives both power and ample water-supply for other purposes. In any estimate of the industrial value of Esthonia the inclusion of Narva makes a difference in gross value of not less than 35–40 per cent.

A factory inspector's report for 1910 gives figures for the number of factories and the workers employed therein, which are reproduced below :

NUMBER OF FACTORIES¹ AND WORKERS IN THE BALTIC PROVINCES
IN 1910

| Industry. | Courland. | | Livonia. | | Esthonia. | |
|--|------------|----------------|------------|----------------|------------|----------|
| | Factories. | Workers. | Factories. | Workers. | Factories. | Workers. |
| Metal-works (machines and apparatus) | 24 | 3,443 | 87 | 18,657 | 19 | 2,462 |
| Cotton factories | — | — ² | — | — ² | 3 | 11,527 |
| Flax, hemp, and jute | 4 | 753 | 12 | 2,928 | 1 | 50 |
| Woollen factories | 2 | 74 | 10 | 3,133 | 7 | 640 |
| Other textile factories | 2 | 635 | 11 | 1,547 | 2 | 22 |
| Wood working | 24 | 2,258 | 71 | 9,590 | 17 | 2,676 |
| Extraction of minerals | 56 | 4,584 | 32 | 5,964 | 18 | 1,343 |
| Chemical industry | 9 | 1,223 | 29 | 9,613 | 3 | 500 |
| Paper and printing industries | 11 | 747 | 60 | 6,410 | 23 | 1,406 |
| Preparation of food-stuffs | 24 | 1,362 | 53 | 5,067 | 16 | 520 |
| Preparation of animal products | 7 | 628 | 24 | 1,470 | 1 | 64 |
| Electric stations | 1 | 50 | — | — | 1 | 29 |
| Total | 164 | 15,757 | 389 | 64,379 | 111 | 21,239 |

The figures for the cotton industry in Courland and Livonia are not included above—an important omission, since cotton-spinning and weaving to the yearly value of at least 6–7 million roubles is carried on in Riga. It has, however, been possible to ascertain the proportion of raw cotton imported into Riga, which has for some years varied between 4 per cent. and 5 per cent. of Russia's total import from all quarters. Of this a proportion is American cotton destined for Moscow. It is noteworthy that the Russian factory inspector's report appears to assign Narva to Esthonia.

(6) POWER

The use of electricity is growing in Riga factories. In 1913, for the first time, the amount employed for industrial purposes was greater than that used for lighting. Steam-power is employed in distilleries and flour-mills, and also in spinning.

Water-power has so far been much neglected in the

¹ Factories include places employing at least 16 workers or using motor power.

² No returns available.

Baltic Provinces. The Dvina offers considerable opportunity in this direction ; the flow of water below Dvinsk is calculated to average 550–600 cubic metres per second, and an estimate places the power procurable at half a million horse-power. The principal use of water-power is on the Narova close to the town of Narva, where the textile mills are driven by the power from the falls.

(C) COMMERCE

(1) DOMESTIC

(a) *Towns, Fairs, &c.*

The domestic trade of the Baltic Provinces is mainly concerned with the distribution of locally raised agricultural products and timber, and their exchange for manufactured and colonial goods. The commodities dealt in are mainly grain (especially barley), flax, linseed, potatoes and potato alcohol on the one hand, and sugar, coffee, groceries, agricultural machinery, tools, and chemical fertilizers on the other.

The number of commercial centres is small, since Riga and Revel in their respective provinces absorb the bulk of the commerce and leave little over for other places. A great deal of the merchandise arriving at and departing from Riga changes hands in the city itself, which ranks high as a mercantile centre. Moreover the town acts as a distributing base for a very large area, and wholesale firms and agencies holding stocks of imported goods are very numerous. A certain amount of the exported timber and flax is locally produced and marketed in Riga. For dry goods Riga is an important centre, and large stocks of cotton and woollen goods and clothing are distributed thence.

Windau is to some extent a mercantile town, but the goods concerned show that its trade is of a transit

order, and is not much concerned with local necessities or production.

Revel is the local centre for Esthonia. Its transit trade is its great asset commercially, and although it undoubtedly absorbs such wholesale trade as there is in the province, and a few warehousing firms deal there in dry goods, the country in its rear is so poor as to give small scope for purely local commercial activity.

The remaining seaport towns are in no sense commercial centres.

The inland town of Mitau in Courland, with 30,000 inhabitants, has a grain trade, but its importance has diminished greatly of late years. Its trade is mostly with Riga. Dorpat (Yuryev) in Livonia, which is about twice the size of Mitau, is the second town in the province, but it has small commercial activity.

There are a few fairs in the Baltic Provinces. They are of purely local importance and their turnover is not great. Revel has a wool fair from June 27 to July 3, a cattle fair at the end of September, and a general fair during the last ten days of June. Hapsal has fairs in January and October, and Arensburg (on Ösel Island) in July and October.

(b) Organizations to promote Trade and Commerce

The principal commercial organizations are naturally centred in Riga, as the oldest and most wealthy trading town in the Baltic Provinces.

Pride of place is taken by the Riga Exchange Committee, which is an ancient and wealthy corporation with varied interests. The committee consists of eleven elected members, some of whom in the past have been German subjects. It acts in general as a Chamber of Commerce, and all negotiations with bodies representative of trade elsewhere are carried on through it. It has various sub-committees for the

purpose of dealing with the interests of separate trades. It acts to some extent as a port authority, and owns the ice-breakers which keep the port open in the winter as well as other utility vessels. The committee, as its title suggests, carries on the Exchange. In this institution, which has a large membership, the timber, grain, flax, coal, and shipbroking businesses are the most active sections. The committee is the owner of the handsome Exchange building, which contains many business offices and public rooms as well as its own premises; a large staff is employed by it.

Other institutions are the three Guilds, which are of Hanseatic foundation. Practically every trader must belong to one or other of these, which rank in numerical order, although they have nothing to do with the particular trades in which the members are engaged. The Guilds issue and control the licences to trade, which every merchant in Russia must possess and exhibit prominently on his premises. Certain commercial taxes are collected through the medium of the Guilds in the shape of annual fees for membership, which are about £50 for the First and £25 for the Second Guild. To be able to appear on 'Change it is necessary to be a member of the First or Second Guild; the Third Guild is associated more with retail trading. The Second Guild carries on a savings-bank and makes advances to traders. Membership of a Guild is in some sort a guarantee for the status of the individual trader.

A branch of the Petrograd-Baltic Commercial Artel is carried on in Riga and another in Revel. The object of this institution is the supply of employees for positions of trust in banks and other businesses. The employees in question are members of the *artel*, and the institution guarantees from its extensive funds the property of those who employ its members, in so far

as they are individually responsible. The *artel*, which is a deeply-rooted trade institution in Russia, exercises an influence for which there does not appear to be any parallel elsewhere.

The Baltic Agricultural Association exists to forward the interests of the Lettish farmers. It markets a great deal of dairy produce and is interested in the purchase and distribution of seed, artificial manures, agricultural machinery and tools, &c., of which it had well-stocked depots in Riga and other centres.

There exists a Manufacturers' Union, which generally fosters the interests of industry. One of its functions is the collection and issue of trade statistics for Riga and the neighbouring provinces.

There are, however, no examples of associations of particular trades. This lack of co-operation is attributed by those who know the conditions to the large proportion of Jewish traders, who are disinclined to coalesce formally.

Revel possesses a Chamber of Commerce, but Libau does not appear to have one.

(c) *Foreign Interests and Economic Penetration*

Foreign commercial interests are represented only in the seaports. A number of British firms and individuals resident in Riga and Revel are concerned with the coal import trade. The import of agricultural machinery into Riga is also a valuable trade, for which makers in Great Britain, America, Sweden, and Germany compete. The more noted firms, especially those which deal in heavy and complicated machinery, frequently have their special agencies served by their own nationals. The more important export branches are similarly served, principally by British and Germans who are interested in the timber, flax, butter, and egg trades. The import of luxury goods, general and electrical

machinery, dye-wares, artificial manures, &c., is commercially in the hands of Germans. While many of these belong by birth to the Baltic Provinces, a large number nevertheless are subjects of the German Empire.

The only foreigners interested in the internal trade of the Baltic Provinces are also Germans. The bulk of these are no doubt Baltic Germans, born and brought up in the country ; but a small proportion in this case also are certainly German subjects.

The high duties placed on foreign manufactures by Russia led to the establishment in the country of branch factories by large foreign concerns which were unwilling to forgo their Russian trade. A share of this penetration from abroad reached the Baltic Provinces, centring in Livonia. One large cotton factory in Riga is the property of a Scottish firm which has mills in several parts of Russia. British interests are also concerned in a cotton mill in Mitau.

Penetration of this kind is, however, peculiarly the province of German concerns. Notable examples are the Allgemeine Elektrizitäts Gesellschaft, of Berlin, in electrical machinery, Messrs. Siemens-Schuckert, of Berlin, in general and electrical engineering, and Leopold Cassella, of Frankfort, in aniline dyes and colours. These firms all have manufacturing branches in Riga.

Other foreign firms in Riga are a German steam-engine works with head-quarters at Dahlbruch, employing in Riga 926,000 roubles, or half its capital ; a wire works with head-quarters in Hamm, employing 1,700,000 roubles (about a quarter of its capital) in Riga ; an Austrian copper-cap and cartridge works with head-quarters in Prague, employing 250,000 roubles (one-third of its capital) in Riga ; an English company manufacturing gramophones and accessories, employing 600,000 roubles (one-tenth of its capital) in Riga.

In Libau a German aniline colour works from Berlin employs 2 million roubles, equal to about one-third of its capital, and the gasworks are the property of a Kiel concern which employs 277,000 roubles, equal to almost half its capital.

A large wood-pulp mill at Pernau is a branch of a Mannheim concern (see p. 58).

At Revel the tramways are Belgian-owned, with a capital of 450,000 roubles.

Another method of economic penetration is the settlement of Livonia and Courland by German small farmers, which had taken place to some extent before the war, and is advocated now on a larger scale (see pp. 51-52). The idea is to increase the flax and hemp production in the Baltic lands for the supply of German industry, relieving Germany proper from the necessity of cultivating much of this crop.

(2) FOREIGN

(a) *Exports*

Quantities and Values.—As might be expected, much the greater part of the exports from the Baltic Provinces consists of the natural products of the country, flax and hemp, skins and hides, timber, eggs and butter, cereals and seeds, being the outstanding items.

At Riga, which has a larger business than any of the other ports, the total value of the exports in 1913 amounted to £23,000,000 ; of this figure more than two-thirds were accounted for under the heads flax and hemp, skins and hides, wood (in various forms), and eggs. In almost all the items Riga was very far ahead of the other ports ; indeed for hides and skins it was the most important centre in Russia, having shipped about 39 per cent. of the total Russian export. It held much the same position in respect of fibres,

sending out nearly one-half of the total Russian export of flax and tow, and about one-third of that of hemp. Of cereals also (oats and wheat), of seeds (linseed, aniseed, and clover) and of oilcake, Riga handled larger quantities than any of the other ports of the Provinces. Libau, however, competes closely with Riga as the other principal grain-exporting harbour of the Provinces; but the grain trade is no longer of first importance, all the Baltic ports together having exported in 1911 only about one-sixth of the total Russian supply. Riga is by a long way first in the amount of eggs exported, £3,700,000 in value in 1913 as against £80,000 for Libau and £66,000 for Windau. On the other hand, Windau, owing to its extensive cold-storage accommodation, is far ahead of Riga, Libau, and Revel in the export of butter, accounting for over £5,000,000 worth in a total for the Provinces of about £5,500,000. In the export of meat, mostly bacon, as of game and poultry, Windau is inferior to Riga and Libau, while in these commodities Revel has fallen almost to insignificance through its lack of cold storage. On the other hand, Revel has an important export under the head of veneer and joinery, and also exports asbestos in bulk and a comparatively small amount of copper. There are various minor exports, such as tar and turpentine from Riga and Libau, and mineral oils from Riga and Revel. The foreign trade of Hapsal is insignificant; its chief exports are grain and spirits. A fuller list of goods and values for the year 1913 will be found in the Appendix (Table II).

For the five ports, Hapsal being excluded, the total exports for 1913 amounted to about £39,000,000, the shares in round numbers being Riga £23,000,000, Windau £7,800,000, Libau £5,100,000, Revel £2,400,000, and Pernau £480,000. Variations from year to year

may be expected when the export trade depends so largely on crops and products of various kinds, which are subject to seasonal influences. Thus drought diminishes the output of flax, &c., and an unfavourable winter, that is one with less than the usual amount of frost, handicaps the transport of timber. A general depression in the agricultural and industrial trades affected the returns for 1913. This was markedly so in the case of Windau, where a very small part of the trade is of local origin, and that, too, being timber, suffered from a bad winter. The grain trade of Libau similarly diminished in part from the bad harvest of 1912.

Countries of Destination.—It is not possible to state definitely the countries for which the various exports were ultimately destined, and such figures as are available do not account for the exports from Riga, which are of course the most important; figures showing the nominal destinations of exports from Libau, Windau, Pernau, and Revel in 1913 are, however, given in the Appendix (Table III). On the whole it may be said that the United Kingdom takes a larger share of the export trade of the Provinces than any other country, and that, so far as the figures for 1913 are concerned, only in the case of the exports from Libau and Windau was that share slightly exceeded by the United States in the one case and by Germany in the other. Thus at Riga the United Kingdom took 40 per cent. of the exports in 1913 (including 75 per cent. of the eggs), while Germany took 20 per cent. At Libau the United Kingdom took 29 per cent. (sharing the cereals equally with France), and the United States 30 per cent. At Windau the shares of the United Kingdom and Germany were respectively 30 per cent. and 32 per cent.; half the large butter export from Windau went to Germany, the rest to the United

Kingdom and Denmark in equal proportions; the exports from Windau to Germany had, however, been on the decline in the years before the war. Of the exports from Pernau no less than 75 per cent. went to the United Kingdom in the year mentioned (1913), though the total figure in this case is a small one (£400,000). Finally about 40 per cent. of the export from Revel went to the United Kingdom.

(b) *Imports*

Quantities and Values.—The striking features in the import trade of 1913 were the large increase attributed to Riga, and the rapid expansion of Revel. Indeed, these two ports between them accounted for something like four-fifths of the total import trade, and Riga's proportion of the total foreign trade of Russia had risen from 14½ per cent. in 1912 to 17 per cent. in 1913. At Riga the value of imports, which in 1912 amounted to £15,420,000, rose in the following year to £18,841,000, while at Revel food-stuffs in 1913 exceeded the average for 1910–12 by 48·5 per cent., raw and partially manufactured materials expanded by 69 per cent., and manufactured articles by 70 per cent. The total value of imports for Revel in 1913 was £9,537,000 as against £9,043,000 in the previous year. All the ports, indeed, with the exception of Windau, showed an increase in value of imports on those of 1912, there being a rise even at Libau, which has no great interior forwarding trade, of £315,000. At Windau there was a drop of nearly £1,000,000 in value, though the quantity had gone up from 104,900 to 118,400 tons, an increase due to an abnormal import of coal, the result apparently of a very bad year for timber.

One feature in the decline of Windau was a decrease in the import of agricultural machinery, which fell from £1,898,600 in 1911 to £1,569,500 in 1913, having formed

respectively 65 per cent. and 80 per cent. of the total import in these years. This decrease was seen also in a less degree in the case of Riga, and seems to have marked a tendency observable in Russia as a whole, the first-fruits of a Government premium offered in 1912 for agricultural machines constructed in home factories. On the other hand, the import of industrial machinery and parts has shown a continuous increase at Riga since 1910. In the total machinery imports, which constituted the most important item in the import trade of the provinces in 1913, Windau stood second to Riga, the respective values being £1,670,000 and £3,356,000, while at Libau the figure was £820,000, at Revel £597,600, and at Pernau £22,800.

At all the ports the greatest demands were for machinery, coal and coke, and raw and partially manufactured materials. Much of the coal was for railway purposes; but the shrinking supply of cheap timber resulted in a demand for fuel for domestic heating purposes, which had to be met by the import of coal and of patent fuel in the form of briquettes. The import of the last-mentioned material promises expansion, provided the cost can be reduced and difficulties of harbour storage overcome. Of raw and partly manufactured materials Riga and Revel substantially monopolized the import in 1913. Cotton, for example, is the principal item in the list for Revel at a value of £3,884,000, and though Riga took but a third of this amount, the imports to Windau and Libau were in comparison inconsiderable. An even greater proportion of rubber and caoutchouc was taken by the two former ports, Riga importing to the value of £2,225,900, and Revel £1,384,000, while the remainder, which went to Windau, stood at only £8,853, a great drop from £91,480 in the year before. Wool and woollen goods, jute, and metal goods were similarly

shared between Riga and Revel. To these ports went also the great bulk of the metals; Windau and Libau had a relatively small share of the iron, steel, and lead.

Chemical manures form an important class of imports. They are common to all the ports, and varied little in quantity between 1912 and 1913, except at Libau, where there was a decline. Revel accounted for 32 per cent. of the total import into Russia, and Libau for 23 per cent. Herrings are another common article of import, and one that is steady in amount. Cocoa, coffee, and tea all showed an increase on the whole. Copra, though it declined at Riga, showed increase in value for both Revel and Libau. Dye-woods and tanning materials are steadily increasing in importance, especially at Libau.

Additional details will be found in the Appendix (Table IV).

Countries of Origin.—A difficulty as to the sources of the different imports arises from the Russian practice of giving the countries of embarkation rather than of origin. Thus certain goods arriving from Belgium and Holland and classed as Belgian and Dutch are really dispatched through these countries from western Germany. American hardware, again, comes mostly through Hamburg, from the representatives of American houses there, and in part from Copenhagen; it would be entered as from Germany and Denmark respectively.

The greater part of the import of coal continues to come from the United Kingdom, but a special feature at Riga in 1913 was a largely increased import of Westphalian coal; Germany, too, supplied the briquettes to that port from Stettin. But at Pernau the whole of the coal and patent fuel that entered came from the United Kingdom.

In the supply of machinery and parts at Revel, in

1913, the United Kingdom for the first time fell below Germany, from which country, too, electrical supplies and accessories very largely came. Nevertheless, two-thirds of the machinery for Libau came from the United Kingdom. Sweden has made a considerable advance in the supply of agricultural machinery, specializing in harvesting and dairy machinery, and had taken the lead in the import of agricultural implements as early as 1911. Of the machinery imported into Riga the agricultural machinery was from the United States, Sweden, the United Kingdom, and Germany, the industrial machinery from the United Kingdom, Germany, and Sweden, the order being that of relative importance. At Pernau the import of machinery was monopolized by Germany and Sweden.

Germany supplied in 1913 most of the total import of chemical manures, drugs, and chemicals, and a few heavy chemicals, e.g. nitrate of soda, kainit, and potash salts, came exclusively from that country. At Pernau, however, half the import of chemical manures (chiefly basic slag) came from the United Kingdom.

Of the increasing shipments of rubber and caoutchouc, the amount from British ports had doubled at Revel since 1912, and rose to 75 per cent. of the total. On the other hand, more cotton was forwarded to this port by Germany than by the United Kingdom. Denmark and the Netherlands come much below these other sources in the matter of imports. It is to be noted that the United Kingdom can claim an even more preponderating share of the total import trade of the Provinces than of the exports, and that here also Germany is her principal competitor; at Riga the share of the United Kingdom in 1913 was 44 per cent., that of Germany 35 per cent. Particulars of the import trade at the other chief ports in the year 1913 will be found in the Appendix (Table V):

In addition to its overseas imports Riga receives a considerable amount by land. In 1913 over £1,100,000 worth of goods entered by rail from the western frontier, and goods to the value of nearly £70,000 came from Finland.

(D) FINANCE

(1) *Public Finance*

The revenue receipts of the three Baltic Provinces rose between 1906 and 1910 as follows :

| | <i>Roubles.</i> | <i>Roubles.</i> |
|--------------------|-----------------|-----------------|
| Esthonia | 18,600,000 to | 19,500,000 |
| Livonia | 37,500,000 to | 46,300,000 |
| Courland | 14,000,000 to | 19,000,000 |

The total for the three Provinces amounts to about one-twentieth of the annual revenue of European Russia.

The Baltic Provinces have no *zemstvos*, and therefore no *zemstvo* taxation ; but there are local taxes raised for local purposes by the Government, or, in towns, by the municipalities. According to the latest accessible returns (1910), the Government raised in this way the following amounts :

| | <i>Roubles.</i> |
|--------------------|-----------------|
| Esthonia | 190,000 |
| Livonia | 391,000 |
| Courland | 392,000 |

The local taxes levied by the towns in 1910, with the local debts, were as follows :

| | <i>Taxes.</i> | <i>Local Debt.</i> |
|---------------------------|-----------------|--------------------|
| | <i>Roubles.</i> | <i>Roubles.</i> |
| Riga | 6,150,000 | 12,800,000 |
| Revel | 844,000 | 1,048,000 |
| Libau | 931,000 | 1,015,000 |
| Windau | 143,400 | 856,000 |
| Pernau | 225,000 | 76,000 |
| Mitau | 416,000 | 600,000 |
| Dorpat (Yuryev) | 531,000 | 960,000 |

(2) *Banking*¹

Russian banks are either State or private institutions. The opening of private banks, including those guaranteed by towns—a very characteristic institution of Russia—requires the permission of the Government; their aims and methods must be specified, that is, the purposes which they are instituted to serve, the length of the credits they grant, and the guarantees they exact. Finally, their working is controlled, though less rigidly than formerly, by general or private statutes.

Of State banks with branches in the Baltic Provinces there are :

(1) The Imperial Bank of Russia, which has branches at Riga, Revel, Windau, Libau, and Hapsal. It has the sole right of issuing notes; it is the agent of the Treasury and also does general banking, including Government advances to the classes that live by the land.

(2) The Peasants' Land Bank, which is intended to assist with small advances for buying land or agricultural machinery, &c. During the period 1908–14 it helped peasants to buy an average annual amount, in Esthonia of 29,600 acres, in Courland 20,890 acres, and in Livonia 13,900 acres.

(3) The State Savings Banks. These institutions are under the control of a committee appointed by the Imperial Bank, which audits their accounts. The figures in reference to them for 1913 are as follows :

| | <i>Number of State Savings Banks.</i> | <i>Number of Depositors.</i> | <i>Amount of Deposits. Roubles.</i> |
|----------------|---|----------------------------------|---|
| Courland . . . | 66 | 85,700 | 12,300,000 |
| Livonia . . . | 133 | 136,800 | 22,900,000 |
| Esthonia . . . | 34 | 68,800 | 12,700,000 |

¹ It should be noted that most banks in the Provinces have been dissolved or disabled during the war.

Of private commercial banks the following have branches in these provinces :

The Azov-Don Commercial Bank, in Riga, Revel, and Libau ; the Banque Russo-Asiatique, in Riga and Libau ; the Russian Bank for Foreign Trade, in Riga ; the Volga-Kama Commercial Bank, in Riga ; the Moscow Commercial Bank, in Libau ; the Banque de Commerce Russo-Française, in Revel ; the Union Bank, in Libau and Revel ; the Russian Commercial and Industrial Bank, in Windau ; the Petrograd International Bank of Commerce, in Windau.

Of banks that confine their operations to the Baltic Provinces, the chief in Riga (where there is a Bankers' Clearing House) are the Rigaer Börsen-Bank (capital 3,500,000 roubles, reserve 2,200,000 roubles, founded in 1863) ; the Rigaer Commerz Bank, with branches in Revel, Libau, Pernau ; and the Municipal Bank (capital in 1913, 2,100,000 roubles, reserve 500,000 roubles). The last-named is guaranteed by the town rates, and is under supervision of a Government Department. Revel has the Revaler Bank Comptoir and Hoepfener's Bank ; Libau, the Libauer Börsen-Bank and Salomonowitsch's Bank ; Windau has the Junkers' Commercial Bank, with branches at Pernau and Dorpat ; Dorpat has the Jurjewer Bank ; Mitau has Westerman's Bank.

Mutual credit institutions have made great headway of late years in the Baltic Provinces. They are usually organized on the principles of Schulze-Delitzsch or Raiffeisen, and they supply local credit for agriculture, small industries, &c.

Private loan and savings banks also enjoy great popularity and are increasing their membership and capital at a rapid rate.

(3) *Influence of Foreign Capital*

In banking and the financing of trade and industry foreign capital is mainly represented by certain well-known joint-stock banks, which are named in the list of private commercial banks above (p. 76). These banks, with various Russian titles, some implying activity in special territories, are well known to draw a considerable portion of their resources from German financial centres ; and their policy is partly directed towards financing such branches of industry and such concerns as will divert the profits into German channels.

The extent to which foreign capital is interested in Baltic industry has to some extent been indicated already (pp. 65, 67). The proportion of foreign capital to the whole is small, but its influence is much greater than would appear from the number of concerns involved. It is exercised mainly through the group of commercial banks already mentioned, but its volume and location are difficult to trace or to state in figures.

(4) *Principal Fields of Investment*

The development of the flax and hemp industries would appear to offer one of the best forms of investment in the Baltic Provinces. A great deal of the raw material produced in or near the Provinces appears to be exported unworked, but with a cheap and fairly efficient labour supply much more might be manufactured locally. In regard to other industrial ventures much depends on the fiscal system under which the Provinces will be regulated in the future. Up to the present the success of industry has depended on the Russian market being a free one, and also upon the fact that the technical and labour forces engaged are decidedly superior to those generally competing with them inside the Russian tariff wall. Should Baltic industries be subject to a Russian tariff in the future, it is hard to

see how they can continue, as, with the high costs for imported fuel and raw material, they could not compete with those of neighbouring western states. On the other hand, if the Baltic countries should be included in the German customs union, their position would still be very unfavourable compared with that of other districts in the union. Therefore, before anything authoritative can be suggested as to investment in industry, the final political settlement of the country must be awaited; but the former great prosperity of the textile and engineering and allied trades justifies the hope that a free investment of capital would see a good return, provided only that access to suitable markets is secured. The view so often expressed, that the Provinces of Livonia and Courland would bear much closer agricultural settlement, makes it likely that land banks and institutions which loan money for general agricultural purposes may look forward to a profitable period.

(E) GENERAL REMARKS

Even without the complications brought about by the European war, the Baltic Provinces were in an extremely disturbed state, and were the scene of destructive revolutionary struggles. The forces engaged were: the Russian authorities, who were endeavouring to russify the whole country, taking different means at different times during the last 25 years; the Lettish and Esthonian populations, which formed the proletariat, and were struggling for land possession and better industrial conditions; the Germans, who were the employers of labour in country and town, the suppliers of technical industrial skill, and the most cultured people in the Provinces. The antagonism between these forces and their respective aims has

prevented latterly a normal development of economic conditions. The recovery of Riga from the destruction caused by the Lettish Revolution of 1905 was nevertheless rapid, and the city became again prosperous.

At the present day, industry of all kinds, and to a large extent agriculture, are in a state of suspension, and continuity has been quite broken. The future prosperity of the Provinces depends on entirely new factors. The seaports, of course, were all necessary to the development of the Provinces, and should become again active resorts of shipping. Libau alone may suffer somewhat, as its use was artificially stimulated by the Russian Government, and, under new conditions, some of its former traffic, especially to and from Poland, may be diverted west. Agriculture should, according to general report, be capable of much expansion; the local production of bread-stuffs should, to a much greater extent than formerly, supply the needs of the population, and there should be a great increase in the crops of flax, hemp, and fodder. The forest wealth is reported greatly damaged during the war, and many years must elapse before its former value is restored.

The resumption of industry is to be hoped for, but the total evacuation of plant and the dispersal of labour and technical forces which has taken place in Riga and other towns during the war does not allow of any very high expectations for the immediate future. Everything depends upon the equitable political settlement of the Provinces, and their inclusion in a fiscal unit which will allow of their reasonable development, and above all of their freedom of access to their natural hinterland in Central Russia.

APPENDIX

HISTORICAL NOTE

Courland became a part of the Russian Empire in 1795 without any treaty or agreement by the abdication of its Duke and the submission of its Diet.

Esthonia and *Livonia* were formally ceded to Russia by Sweden in the Treaty of Nystad, signed on August 30/September 10, 1721. By Article 4 the cession of these two Provinces, with others, and the adjacent islands, was made in perpetuity.

Article 9 provided that the inhabitants of Livonia, Esthonia, and Ösel should be maintained in the full enjoyment of the privileges, customs, and prerogatives which they enjoyed under the dominion of Sweden.

Article 10 similarly protected their liberty of conscience and practice of the Evangelical religion, on condition that the Greek religion might also be freely exercised.

(Koch and Schoell, *Histoire abrégée des traités de paix*, Paris, 1818, xiii. 307, &c.)

TABLE I
NATIONALITY OF SHIPPING WHICH ENTERED IN THE FOREIGN TRADE OF THE PORTS OF THE BALTIC
PROVINCES IN 1913

| | Riga. | | Libau. | | Windau. | | Pernau. | | Revel. | | |
|---------------------|----------|----------|-----------|----------|-----------------|----------|----------|----------|----------|----------|----------|
| | Vessels. | Tonnage. | Vessels. | Tonnage. | Vessels. | Tonnage. | Vessels. | Tonnage. | Vessels. | Tonnage. | |
| British | • | 359 | 61 | 54,405 | 78 | 64,841 | 31 | 27,443 | 70 | 78,138 | |
| Russian | • | 790 | 147 | 256,855 | 154 | 134,868 | 13 | 4,831 | 132 | 91,361 | |
| German | • | 706 | 424,433 | 291 | 140,526 | 100 | 58,736 | 47 | 34,608 | 192 | 149,362 |
| Norwegian | • | 231 | 178,199 | 164 | 91,589 | 34 | 28,067 | 41 | 30,979 | 50 | 42,802 |
| Swedish | • | 335 | 224,054 | 168 | 86,689 | 94 | 60,103 | 16 | 9,501 | 56 | 36,679 |
| Danish | • | 296 | 243,052 | 196 | 147,833 | 132 | 93,236 | 30 | 22,547 | 62 | 50,736 |
| Other nationalities | • | 34 | 45,865 | 11 | 10,081 | 4 | 2,577 | 8 | 9,304 | 28 | 28,076 |
| | | | | | Sailing Vessels | | | | | | |
| | 200 | 60,221 | 222 | 34,561 | 16 | 1,391 | 6 | 1,245 | [|] | |
| Total entered. | • | 2,951 | 2,034,953 | 1,260 | 822,539 | 612 | 443,819 | 192 | 140,458 | [590 | 477,154] |

TABLE II

PRINCIPAL EXPORTS FROM THE PORTS OF THE BALTIC PROVINCES
IN 1913(Some minor exports have been included in order to compare the amounts sent
out from the different ports).

| | <i>Riga.</i> ¹ | <i>Libau.</i> | <i>Windau.</i> | <i>Pernau.</i> | <i>Revel.</i> |
|---|---------------------------|---------------|----------------|----------------|---------------|
| | £ | £ | £ | £ | £ |
| Animals (horses) | 108,942 | 41,566 | — | — | — |
| Asbestos | — | — | — | — | 137,317 |
| Burnt ore | — | — | — | 4,071 | — |
| Butter | 431,131 | 21,079 | 5,072,912 | — | 7,198 |
| Cereals | 1,662,053 | 1,081,714 | 638,669 | 660 | 865,464 |
| Copper | — | — | — | — | 6,046 |
| Eggs | — | 80,041 | 66,120 | — | — |
| Flax, tow, codilla, &c. | 4,776,864 | 6,959 | 1,278,520 | 292,800 | 492,889 |
| Game and poultry | 650,805 | — | 53,200 | — | 530 |
| Glycerine | — | — | — | — | 20,561 |
| Hair and bristles | 155,991 | 63,624 | 3,923 | — | 36,835 |
| Hemp and tow | 734,580 | 2,985 | 107,549 | — | — |
| Meat | 255,659 | 322,203 | 19,024 | — | — |
| Mineral oils | 230,248 | — | — | — | 13,763 |
| Oil-cake | 287,240 | 253,610 | 33,389 | 11,627 | 11,511 |
| Rubber goods and old rubber | 1,226,691 | — | — | — | — |
| Seeds (anise, clover, linseed, &c.) | 402,774 | 125,677 | 116,982 | 16,530 | 31,467 |
| Skins and hides | 4,289,434 | 1,223,494 | 10,622 | — | 34,802 |
| Spirits | 43,462 | 73,479 | — | — | — |
| Tar and turpentine | 15,086 | 38,372 | — | — | — |
| Tobacco and cigarettes | 127,820 | 5,937 | 1,694 | — | — |
| Veneer and joiners' work | — | 109,539 | — | — | 503,303 |
| Wood (including boards, poles, masts, sleepers, &c.) | 4,271,028 | 488,645 | 376,007 | — | — |
| Wood-pulp | — | — | — | 88,028 | — |
| Wool and woollen goods | 57,068 | 144,693 | 31,305 | — | 123,312 |

¹ The figures for Riga are provisional.

TABLE III

TOTAL VALUE OF EXPORTS IN 1913, DISTINGUISHING
PRINCIPAL COUNTRIES OF DESTINATION

| | <i>From</i> <i>Libau.</i> | <i>From</i> <i>Windau.</i> | <i>From</i> <i>Pernau.</i> | <i>From</i> <i>Revel.</i> |
|---------------------------|------------------------------|-------------------------------|-------------------------------|------------------------------|
| | £ | £ | £ | £ |
| United Kingdom | 1,522,133 | 2,302,931 | 364,774 | 1,017,340 |
| United States | 1,596,545 | 36,870 | 1,253 | 56,914 |
| Germany | 709,171 | 2,583,384 | 19,620 | 370,669 |
| Netherlands | 406,866 | 428,573 | 21,895 | 570,801 |
| France | 344,944 | 466,715 | 16,097 | 148,818 |
| Denmark | 287,592 | 1,159,282 | 8,600 | 27,798 |
| Belgium | 177,111 | 799,676 | 33,788 | 233,806 |
| Sweden | 52,112 | 60,338 | 8,947 | 24,167 |
| Norway | 15,586 | 18,093 | 3,994 | 7,537 |
| Portugal | 5,479 | — | 3,648 | — |
| Italy | 1,493 | — | — | 1,199 |
| Spain | 264 | — | — | — |
| Other countries | 1,572 | — | — | — |
| Total | £5,120,868 | £7,855,862 | £482,616 | £2,459,049 |

TABLE IV

PRINCIPAL IMPORTS INTO THE PORTS OF THE BALTIC PROVINCES
IN 1913

(Some minor imports have been included in order to compare the amounts received
at different ports).

| | <i>Riga.</i> ¹ | <i>Libau.</i> | <i>Windau.</i> | <i>Pernau.</i> | <i>Revel.</i> |
|---|---------------------------|---------------|----------------|----------------|---------------|
| | £ | £ | £ | £ | £ |
| Castor-oil and other seeds | 20,737 | 42,214 | — | — | — |
| Chemicals and drugs | 454,411 | — | 3,366 | — | 86,886 |
| Chemical manures | 446,513 | 234,971 | — | 20,232 | 60,913 |
| Clay | 65,119 | 1,137 | — | — | 3,946 |
| Coal and coke | 1,601,734 | 320,176 | 71,348 | 137,561 | 693,602 |
| Coffee, cocoa, tea | 747,872 | — | — | — | 138,584 |
| Copra | 403,800 | 74,179 | — | — | 92,707 |
| Corkwood | 205,746 | 42,064 | — | 8,888 | — |
| Cotton and cotton goods | 1,356,445 | 60,380 | — | — | 3,884,238 |
| Dyewoods and tanning materials | 463,544 | 156,925 | — | — | — |
| Electrical apparatus | 340,551 | — | — | — | — |
| Fire bricks | 38,281 | 5,836 | — | 1,411 | 9,998 |
| Fruits and vegetables | 28,406 | — | 8,374 | — | 89,893 |
| Herring | 745,064 | 495,075 | 14,535 | — | 44,513 |
| Jute | 207,183 | — | — | — | 40,992 |
| Lard | 193,919 | — | 677 | — | — |
| Leather | 263,371 | — | — | — | — |
| Machinery and parts | 3,356,289 | 820,156 | 1,670,072 | 22,839 | 597,643 |
| Maize | — | — | — | — | 74,178 |
| Metals | 1,512,194 | 49,915 | 12,590 | 34,477 | 975,792 |
| Metal goods | 360,534 | — | — | — | 126,888 |
| Resin | 134,858 | — | — | — | — |
| Rice | 159,535 | — | — | — | 22,501 |
| Rubber and gutta percha | 2,225,973 | — | 8,853 | — | 1,384,217 |
| Skins and hides | 531,547 | 253,513 | 507 | — | 72,129 |
| Wine, beer, and spirits | 166,518 | — | 2,110 | — | 40,150 |
| Wool and woollen goods | 386,550 | — | 132 | — | 73,346 |
| Yarn and twine | 474,007 | — | 43,294 | — | — |

¹ The figures for Riga are provisional.

TABLE V

TOTAL VALUE OF IMPORTS IN 1913, DISTINGUISHING
PRINCIPAL COUNTRIES OF ORIGIN

| | <i>To Libau.</i> | <i>To Windau.</i> | <i>To Pernau.</i> | <i>To Revel.</i> |
|-----------------------|------------------|-------------------|-------------------|------------------|
| | £ | £ | £ | £ |
| United Kingdom . . . | 1,438,280 | 324,996 | 149,002 | 4,316,950 |
| United States . . . | 707,895 | 682,757 | — | 57,495 |
| Germany . . . | 909,608 | 220,991 | 23,551 | 3,618,815 |
| Netherlands . . . | 156,006 | 4,074 | 7,884 | 442,729 |
| France . . . | 64,464 | 59,531 | — | 143,569 |
| Denmark . . . | 34,735 | 466,737 | — | 675,358 |
| Belgium . . . | 82,366 | — | — | 116,161 |
| Sweden . . . | 30,900 | 216,032 | 5,557 | 44,105 |
| Norway . . . | 55,354 | 1,577 | 34,477 | 15,938 |
| Portugal . . . | 30,306 | — | 7,866 | 78,763 |
| Africa . . . | 14,018 | — | — | — |
| Italy . . . | 3,946 | — | — | 10,602 |
| Spain . . . | 1,856 | — | — | 9,161 |
| Other countries . . . | 2,917 | 240 | 1,102 | 7,909 |
| Total . . . | £3,532,651 | £1,976,935 | £229,439 | £9,537,555 |

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MAPS

Courland, Livonia, and Esthonia are covered by four sheets (Stockholm, O. 34 ; Riga, O. 35 ; Warsaw, N. 34 ; Minsk, N. 35) of the International Map (G.S.G.S. 2758) published by the War Office.

A special map of "Courland, Livonia, Esthonia" (G.S.G.S. 3696), on the scale of 1 : 1,000,000, has been issued by the War Office (Dec. 1918) in connexion with this series.

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1. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

BESSARABIA, which occupies the extreme south-western corner of European Russia, and covers an area of 17,614 square miles, lies between $45^{\circ} 14'$ and $48^{\circ} 38'$ north latitude and $26^{\circ} 2'$ and $30^{\circ} 30'$ east longitude. The boundaries are almost entirely natural. On the south-east is the Black Sea; on the east and north Bessarabia is separated by the Dniester from the Russian Governments of Kherson and Podolia and from the south-eastern extremity of Austrian Galicia. In the north-west the country marches for a short distance with the Bukovina, but the western boundary, starting from a point near Nowosselizy, follows the course of the Pruth as far as the confluence of this river with the Danube in the neighbourhood of Reni. The Danube itself and the most northerly (Kiliya) arm of its delta then form the short southern boundary.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

Bessarabia as a whole presents an undulating surface sloping gradually from north-west to south-

east. Groups of well-wooded hills occur both in the north and centre, but the south consists of level steppes.

The northern heights, or Khotin Hills, are a continuation of the Carpathians, and are intersected by a series of parallel river valleys running from north-west to south-east. The main ridge, which serves as the watershed between the Dniester and the Pruth, runs in an easterly direction, rising to a height of 1,540 ft. near Sekuryany, this being the highest elevation in Bessarabia. South of Sekuryany the hills split up into three branches. The main branch continues at about the same height along the right bank of the Dniester. West of this ridge is a further series of hills extending in a south-easterly direction and forming the watershed between various tributaries of the Dniester and the Pruth; while still farther west is a third range of hills, running in a southerly direction along the right bank of the Chugura.

Central Bessarabia, i.e. the southern half of the district of Byeltsy and the districts of Orgyeev and Kishinev, is occupied by a thickly wooded series of hills belonging to the Jassy-Orgyeev system. These hills are divided into two branches, of which the higher eastern branch follows the valleys of the rivers Ikel and Byk and slopes down towards the right bank of the Dniester, while the lower western branch is split up into a series of longitudinal hills which finally merge into the Budzhak (Bujak) steppes. These latter hills are the source of numerous small rivers which discharge into the salt lakes along the Black Sea coast.

Southwards from about the latitude of Kishinev there are no heights over 1,120 ft., and the surface becomes gradually lower and less watered, with fewer trees. South of the Wall of Trajan lie the Budzhak steppes, where the forests cease and the elevation falls below 800 ft., gradually decreasing still further until the Black Sea coast is reached.

Coast

The coast-line is very short, extending from the mouth of the Kiliya arm of the Danube to the outlet of the Dniester, and is remarkable for its series of *limans*. These are inlets at the mouth of a river, separated from the sea by a narrow strip of alluvial land called *peresyp*. From many of them salt is obtained. The water is shallow, especially in the northern part of the Dniester *liman*, which shows signs of being blocked by deposits from the river.

River System

There are three large rivers in Bessarabia, the Dniester, the Pruth, and the Danube.

The *Dniester*, from the Bessarabian frontier to its *liman* on the Black Sea shore, into which it falls by several mouths, has a length of some 594 miles (900 versts). As far as Bendery the Bessarabian bank is high, steep, and craggy, and is in most places covered with trees; but south of this point the banks become lower and more marshy. The current, even at low water, is decidedly rapid, and it is only in the lower part of the river that there are wide stretches of evenly flowing water. The average breadth is about 630 ft., and the average depth varies from $10\frac{1}{2}$ to 21 ft. At flood-time in February or March, and also in June, the water often rises 20 ft. or more, and causes great devastation. The chief interruption to navigation is caused by the Yampol Rapids, beyond which large steamers cannot pass, but a natural channel on the left and an artificial one on the right of the falls render navigation possible for light river craft. The chief tributaries of the Dniester within Bessarabia are the Reut, Ikel, Byk, and Bolna, none of which is of much value for navigation.

The *Pruth* forms for 462 miles the boundary line between Bessarabia and Rumania. In its upper course it has the character of a swift mountain stream, the average depth varying between 4 and 7 ft. It has a large number of small tributaries, mostly on the left bank. The river is used for rafting wood; there are a few boats in use at the lower end, and Nyemtseny and Leovo are loading stations for corn and other cereals.

The left bank of the *Danube* forms the western part of the southern boundary of Bessarabia. The river flows in a single channel with a great volume of water as far as the Izmail Chatal (fork), where it divides into three main branches, composing a vast delta and a system of islands which are the remnants of a vanished *liman*. Bessarabia is touched directly only by the Kiliya branch, which flows north-east past the towns of Izmail and Kiliya. The enormous deposits brought down by this branch have caused the south-eastern coast line of Bessarabia to advance, while the sea here has become shallower.

(3) CLIMATE

The northern districts of Bessarabia are sensibly affected by the neighbourhood of the Carpathian Mountains, which form a barrier against cold winds, and make this region one of the most favoured as regards climate in the whole of Russia. The conditions are highly favourable to agriculture. The winter is milder than in most parts of European Russia and the summer warmer, and the prevailing winds are from the north-west. The mean annual temperature at Kishinev is 46·6° F. (8·1° C.), the mean temperatures for January and July being 25·7° F. (-3·5° C.) and 72·3° F. (22·4° C.) respectively. The rainfall averages 18·58 inches (472 mm.) for the year, of which 5·5 inches (140 mm.) fall in the months of June and July.

In the country south of Trajan's Wall, which is known as the Budzhak steppes, the climate is continental, particularly in the low-lying coastal districts. Climatic variations are extremely sudden, and are generally due to violent north or east winds. The atmosphere is dry, and the rainfall insufficient, while artificial ponds have constantly to be constructed in order to obtain a sufficient water supply.

(4) SANITARY CONDITIONS

Sanitation is in the same backward condition as in the Ukraine, being particularly bad in the towns. The medical service is quite inadequate, and official discouragement of private enterprise in matters concerning health has been very common.

(5) RACE AND LANGUAGE

The population of Bessarabia is extremely mixed, and the exact proportions of the various races who inhabit the country are very hard to determine. The chief difficulty lies in the fact that the figures of the official Russian census, taken in 1897, differ very materially from other Russian statistics of 1891 (see tables below). Though its accuracy may be doubtful, the 1897 census has been taken as the base of the following account of the various racial elements in Bessarabia.

The *Moldavians* (Rumanians), whatever figures be accepted, form without a doubt the largest element in the population. The census of 1897 puts them at 47·6 per cent. of the whole, and the 1891 figures at 66 per cent. Rumanian nationalists naturally prefer the latter proportion—indeed, even higher estimates have been put forward, but these are certainly much exaggerated.

North of a line drawn between Reni on the Danube and Bendery on the Dniester, the population is over-

whelmingly Moldavian, with the exception of that of the towns (which contain large numbers of Jews) and the district of Khotin in the extreme north. South of this line the Moldavians do not form a majority anywhere except in the regions to the south and south-east of Bendery.

The Moldavians are a dark-haired race of middle height and thick-set muscular physique. Their language is Rumanian, a Latin language with a considerable admixture of Slavonic words.

The northern *Little Russians* are massed in the north of Bessarabia, particularly in the district of Khotin and (northern) Byeltsy and Soroki; these have occupied their land for centuries and are closely connected with the Galician Ruthenians. They are known by various names, e.g., Rusins, Rusnyaks, Galicians, and Railyane. The rest of the Little Russians entered Bessarabia at a much later date, during the period of political colonization in the last century. They came mostly from the Governments on the Dniester and Dnieper, and include the Cossack element in Bessarabia. They form the great majority in the district of Khotin, and occupy most of the villages in the Dniester valley as far south as Soroki. They also have a majority (largely composed of Cossacks) in the district of Akkerman. All Little Russians speak their own language.

Great Russians are conspicuously represented by officials, important members of the municipal population, soldiers, and large landowners. There are also large numbers of Great Russian peasants, mostly Old Believers (*Raskolniki*). These *Raskolniki* form a separate society of their own, consisting of colonies in the Khotin, Soroki, Orgyeev, and Akkerman districts.

The *Jews* predominate in nearly all the towns, except in the districts of Akkerman, Izmail, and Bendery. Commerce and industry are very largely in their hands. With the exception of some wealthy landowners and a few Greeks and Germans, they alone

possess capital, and little business can be conducted except through their medium.

The *Germans* came to the Budzhak steppes from Württemberg in 1814, and both sides of the Kundak lake were colonized by them then under very favourable conditions. Since that date there has been a more or less regular influx of German colonists. Their main stronghold is still the district of Akkerman, where they occupy a large part of the north-west, centre and south-west.

Bulgarians and *Gagauzi* (Turkish-speaking people, whose descent was mainly Bulgarian) have at various times fled from Turkish rule to southern Bessarabia. The *Gagauzi* live chiefly on the west shore of the Yalpukh lake and to the north of it. *Bulgarians* are to be found in the south-west of the district of Akkerman and to the south-east of Bolgrad, in the Izmail district. Those who came from Macedonia and Rumelia speak Bulgarian; those from the Dobruja speak Turkish.

There are a certain number of other peoples in Bessarabia, of whom the chief are the following:—

The *Poles*, consisting chiefly of landlords and officials, with some poorer settlers, who live in the district of Khotin and in some of the larger towns in the district of Soroki. They speak Polish and Russian.

The *Greeks*, who live mostly in the ports of Reni and Izmail and in villages along the lower course of the Pruth; the *Gypsies*, who are scattered all over the country; the *Albanians*, of whom there are a few in the district of Izmail; and the *Armenians*. The last-named are found mainly in the districts of Khotin, Kishinev, and Byeltsy. They are mostly engaged in business, and speak Armenian; they have the same rights as other subjects.

The numbers and distribution of the various elements of the population are shown in the accompanying tables:—

(i) According to the 1897 census, the following were the figures for the principal nationalities by districts:—

| District. | Total. | Moldavians. | Little Russians. | Great Russians. | Jews. | Germans. | Bulgars. |
|---------------|------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|
| Khotin .. | 307,532 | 73,303 (23·8 per cent.) | 163,738 (53·2 per cent.) | 19,361 (6·3 per cent.) | 47,950 (15·6 per cent.) | .. | .. |
| Soroki .. | 218,861 | 138,351 (63·2 per cent.) | 35,094 (16 per cent.) | 10,678 (4·9 per cent.) | 31,162 (14·2 per cent.) | .. | .. |
| Byeltay .. | 211,448 | 140,201 (66·3 per cent.) | 24,067 (11·3 per cent.) | 14,278 (6·8 per cent.) | 27,252 (12·9 per cent.) | 2,145 (1 per cent.) | .. |
| Kishinev .. | 279,657 | 175,926 (62·9 per cent.) | 5,186 (1·9 per cent.) | 33,425 (11·9 per cent.) | 54,486 (19·5 per cent.) | 2,353 (·9 per cent.) | .. |
| Orgyeev .. | 213,478 | 166,218 (77·8 per cent.) | 11,887 (5·6 per cent.) | 5,708 (2·7 per cent.) | 26,680 (12·5 per cent.) | .. | .. |
| Bendery .. | 194,915 | 87,984 (45·1 per cent.) | 21,048 (10·8 per cent.) | 18,622 (9·5 per cent.) | 16,443 (8·6 per cent.) | 5,613 (3 per cent.) | 14,833 (7·6 per cent.) |
| Akkerman .. | 265,247 | 43,441 (16·3 per cent.) | 70,797 (26·7 per cent.) | 25,661 (9·6 per cent.) | 12,280 (4·6 per cent.) | 43,389 (16·3 per cent.) | 56,541 (21·3 per cent.) |
| Izmail .. | 244,274 | 95,495 (39·1 per cent.) | 47,871 (19·5 per cent.) | 30,502 (12·5 per cent.) | 11,715 (4·8 per cent.) | 4,781 (1·9 per cent.) | 30,687 (12·5 per cent.) |
| Bessarabia .. | 1,935,412 ¹ | 920,919 (47·6 per cent.) | 379,698 (19·6 per cent.) | 158,235 (8·1 per cent.) | 228,168 (11·8 per cent.) | 58,281 (3·1 per cent.) | 101,961 (5·2 per cent.) |

¹ There is a discrepancy of 88,150 between this total and that obtained by adding together the figures given for the various nationalities, caused by the omission of the smaller peoples alluded to on p. 7.

(ii) Drăghicescu, a Russian senator, writing in 1918, quotes the distribution by districts as follows, according to the Russian 1891 statistics:—

| District. | Moldavians. | Russians. | Others. |
|------------------|-------------|-----------|-----------|
| | Per cent. | Per cent. | Per cent. |
| Khotin | 80 | 16·5 | 3·5 |
| Soroki | 82 | 3 | 15 |
| Byeltsy | 87 | 8 | 5 |
| Kishinev | 80 | 10 | 10 |
| Orgyeev | 65 | 15 | 15 |
| Bendery | 60 | 22 | 18 |
| Akkerman | 40 | 35 | 25 |
| Izmail | 34 | 23·5 | 42·3 |
| Bessarabia | 66 | 15·6 | 19·4 |

This table contains some obvious inaccuracies. Drăghicescu's figures are of course favourable to the Moldavians, but there are two noticeable exceptions, viz., the districts of Orgyeev and Izmail. The percentages for the Russians are in general accordance with the 1897 percentages in the case of the districts of Akkerman, Bendery, and Kishinev; the 1891 percentage is much higher for the district of Orgyeev; in the case of other districts, and especially of that of Khotin, it is lower. The 1891 percentages for "others" are higher than those of the 1897 census only in the case of the districts of Izmail and Orgyeev; there is a very large difference for the districts of Akkerman, Khotin, and Byeltsy; in the case of the two last the Jews may have been counted in with the Moldavians. As between the Moldavians and Russians, the difference between the two sets of figures for the district of Khotin is the crux of the matter.

(6) POPULATION

Distribution and Density

The official Russian estimate of the total population of Bessarabia on January 1st, 1910, was 2,441,200 (as compared with the 1897 census total of 1,935,412),

and on January 1st, 1915, was 2,686,600, or 152 per square mile.

The population and density per district according to the estimate of 1912 were as follows :—

| Districts. | Population. | | Density per Square Verst (0·44 sq. mile). |
|-----------------|------------------|----------------|---|
| | Total. | Town. | |
| Khotin | 396,000 | 22,100 | 113·1 |
| Soroki .. . | 286,800 | 19,500 | 71·5 |
| Byeltsy | 273,900 | 20,600 | 56·2 |
| Kishinev | 348,100 | 123,100 | 106·4 |
| Orgyeev | 277,200 | 18,200 | 76·3 |
| Bendery | 260,700 | 39,500 | 48·3 |
| Akkerman | 363,000 | 38,700 | 51·6 |
| Izmail | 333,200 | 91,800 | 45·6 |
| Total .. | 2,538,900 | 373,500 | 63·4 |

From these figures it can be seen that the population is densest in the districts of Khotin, Kishinev, and Orgyeev, i.e. that it is mainly an agricultural population and not one dependent on the industry in towns.

Rumanian estimates in 1916 put the population at about 3,000,000, including about 2,000,000 Moldavians, 320,000 Little Russians, and 270,000 Jews. Presuming that Moldavians and Little Russians had maintained something like the proportions assigned to them in 1897, they would now have a population of about 1,428,000 and 588,000 respectively. All recent figures, however, can only be regarded as approximate.

Towns

The chief towns are the capitals of the eight administrative districts and bear the same names: Khotin, Soroki, Byeltsy, Kishinev (which is also the capital of the whole Government), Orgyeev, Bendery, Akkerman, and Izmail.

Movement

According to the official Russian Statistical Annual of 1914, there were in that year 102,654 births, 77,431 deaths, and 20,918 marriages; the percentage per 1,000 of births was 40·4, of deaths 30·5, of marriages 8·2; the net increase of the population was 9·9 per 1,000.

The same publication gave the following figures of emigration for the period 1909-13 and for 1914 :—

| Emigrants. | | | Returned Emigrants. | | |
|------------|-------------------------|--------|---------------------|-------------|--------|
| Colonists. | Éclaireurs ¹ | Total. | Colonists. | Éclaireurs. | Total. |
| 1909-13. | | | | | |
| 5,935 | 749 | 6,684 | 3,039 | 630 | 3,669 |
| 1914. | | | | | |
| 5,500 | 1,864 | 7,364 | 835 | 1,476 | 2,311 |

Recently emigration has been comparatively steady, consisting chiefly of peasants who migrate to South Russia and Siberia. After the 1905 massacre of the Jews at Kishinev there was a great exodus of Jews to America; and they still migrate annually there, though in smaller numbers.

Immigration consists very largely of Russians, many of whom occupy official or military positions, while others (particularly Little Russians) come to Bessarabia seasonally to find employment in the various branches of agriculture. There has been considerable German activity in South Bessarabia since the end of last century.

¹ These éclaireurs (*khodaki*) are pioneer emigrants, generally unauthorised by the Government, who are sent by villagers to report on the prospects of the new land.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

106 A.D. Trajan's Conquest of Dacia.

Second-Thirteenth Centuries. Invasions of Goths, Huns, Slavs, &c.

Fourteenth Century. Penetration of Rumanians.

1457-1504 Stephen the Great of Moldavia annexes Bessarabia.

1520-1568 Sultan Suleiman. Turks annex South Bessarabia (the Bujak).

1739, 1769, 1787, 1806 Russians occupy Bessarabia.

1812 Treaty of Bucarest. Bessarabia annexed by Russia.

1856 Treaty of Paris. South Bessarabia assigned to Moldavia.

1877-78 Russo-Turkish War.

1878 Treaty of Berlin. Bessarabia restored to Russia.

1905-12 Nationalist agitation in Bessarabia.

1916 (Aug. 27) Rumania joins the Entente.

1917 (March) Russian Revolution.

1917 (May) National Moldavian Committee established in Bessarabia.

1917 (Dec. 15) Independence of Moldavian Republic proclaimed.

(1) INTRODUCTION. EARLY INVASIONS

THE name Bessarabia, or Basarabia (in its Rumanian form), links the history of the province with that of the neighbouring country of Wallachia, across the Danube, for it is derived from that of the Basarab dynasty, which, at the end of the thirteenth century, formed out of the numerous small principalities of the Carpathians the first nucleus of the Wallachian State.

The present use of the word Bessarabia is in some sense a misnomer. The name Basarabia was applied to all the dominions of the Basarab princes on both sides of the Danube, but the only portion of modern Bess-

arabia incorporated in these dominions was the south-eastern corner—roughly, those parts which were assigned to Moldavia in 1856 and seized by Russia once again in 1878. The original inhabitants, Scythians and subsequently Getae, were presumably akin to the stocks that peopled the countries on the right bank of the Danube. Like them, they formed part of the Dacian State which, in the first century B.C., achieved a considerable degree of organisation under King Berekista. In the reign of Augustus the coastal region of Bessarabia became attached to the Roman Empire, and various Roman colonies were formed there, in many cases on sites which dated back to the Greek colonies of four or five hundred years earlier. Trajan's conquest of Dacia at the beginning of the second century was not followed by the annexation of Bessarabia, but Roman influence made itself felt there.

In the second century began the invasions of the Goths, who, though thrown back by strong Emperors like Constantine the Great, succeeded in giving a new character to the country. They, in their turn, were followed by the Huns at the end of the fourth century, and the name of "Hunivara" was then loosely applied to Bessarabia.

In the sixth century began the invasions of the Slavs, who have left permanent traces both on the racial character and the nomenclature of the population.

(2) RUMANIAN PENETRATION. TURKISH AND RUSSIAN ACQUISITIONS

From the end of the sixth till the thirteenth century Bessarabia, even more than the neighbouring countries, practically disappears from history under the inundations of barbarian invasions. In turn, Lombards, Avars, Bulgars, Magyars, Kumans, and, finally, Tatar hordes devastated and to some extent repopulated the country. Pisan and Genoese colonists occupied points on the coast, and during the early Middle Ages formed the one nucleus of civilisation in Bessarabia.

In the fourteenth century began a new penetration of the country by Rumanian elements from the north-west. The Moldavian prince, Stephen the Great (1457-1504), gradually incorporated in his dominions practically the whole of modern Bessarabia. The name Bessarabia, however, was kept for the southern portion, while the rest of the country was called, without distinction, Moldavia. Bessarabia, in the narrow sense of the word, was the first part of the province to pass once more under foreign rule. Even before the death of Stephen the Great, the Turks had succeeded in seizing its two chief ports, Kiliya and Cetatea-Albă, to the latter of which they gave the name "Akkerman" ("White City"—a literal translation). The Sultan Suleiman the Magnificent definitely added Southern Bessarabia to his dominions, and formed out of the conquered territory the two Sanjaks of Akkerman and Izmail, so confirming the division of the southern part of the province from the rest of it—a division which has been suggested by geography, and which, to some extent, conforms to the modern distribution of races, but is, on the other hand, prejudicial to the economic development of the land.

The century 1594-1696 was a gloomy time in the history of the province. Cossack, Polish, and Turkish invasions in turn laid it waste and prevented its natural development. 1696 marks the beginning of Russian expansion towards the south under Peter the Great. The fate of the province for the next two centuries largely depended on the fluctuations in Russo-Turkish relations. In 1739, for instance, the Russian armies occupied Northern Bessarabia on their way to Moldavia, only to abandon it at the Treaty of Belgrade. In 1769, again, the armies of Catherine the Great occupied Bessarabia, but lost it by the Peace of Kuchuk Kainarji. A third war in 1787 led to the occupation of the bulk of the province by the Russian armies under Suvorov. The Peace of Jassy (Iasi) in 1792 brought the Russian frontiers permanently as far as the Dniester. In 1806 a new war broke out

between Russia and Turkey. The troops of General Michelson occupied Bessarabia, and the Russian armies pushed on into Moldavia proper, the annexation of the whole of which the Russian Government hoped to achieve. The imminence of war with Napoleon, however, forced Alexander I to content himself with less than he had hoped for. He hurriedly concluded, on May 28, 1812, the Treaty of Bucarest, by which Moldavia was divided into two parts, and the eastern part, the whole of what is now known as Bessarabia, passed under the Russian Crown.

(3) RUSSIAN RULE

That date is the most important in the history of Bessarabia. The new province was at first assured of special conditions. The population was promised exemption from military service and freedom from taxation for three years. Kishinev (Chişinău) was chosen as the capital of the country, which was allowed a Governor of Rumanian race. A special Exarch for the Church was nominated by the Holy Synod at Moscow. On the other hand, a strong army of occupation held the country. A few Russian seminaries and schools were founded, and Bessarabia was separated from contact with the Rumanian countries across the Pruth. Southern Bessarabia—the Budzhak, as the Turks had called it—where the population, owing to the many vicissitudes of its history, was already of a varied character, was still further denationalised. Colonists of various nations were settled or allowed to settle there. Lipovans and other Russian heretics were permitted to make their homes there, and Bulgars escaping from oppression were welcomed. Above all, considerable colonies of Germans were called in to aid the economic development of what was in parts a mere wilderness.

Before long, however, the special privileges, of which the Tsar had at first assured his new subjects, were withdrawn, and a period of complete Russifica-

tion set in. The upper classes, the *boyars*, offered little effective protest to this. They learnt to look to Petersburg rather than to Jassy, and before long had become completely enamoured of Russian ways and out of sympathy with the old nationalist feeling of the province.

The trade of Bessarabia passed rapidly into the hands of the Jews, Germans, Bulgars, Greeks, and Armenians. The peasant population (the great majority) remained, however, untouched. Left to themselves, they went on living their old life, speaking their Rumanian dialect, and preserving their national customs. The Tsarist horror of popular education saved them from the compulsory russification they would have undergone had they attended the few schools set up by the Russian authorities; and they are to-day what they have always been—uninterested in questions of higher politics.

(4) BESSARABIA REUNITED WITH MOLDAVIA

As a result of the Crimean War the territorial arrangements made by the Peace of Bucarest were in part modified. The victorious allies imposed on Russia the surrender of part of the province. By Article 20 of the Treaty of Paris the new frontier between Russia and Moldavia returned to Moldavia a great part of the Budzhak, roughly all the territory to the south of a line drawn from Akkerman to Bolgrad, and to the west of a line drawn from Bolgrad to Catamori on the Pruth. This partial reversal of the arrangement of the Treaty of Bucarest was hailed with delight by Rumanians, though, in fact, the part of Bessarabia returned to Rumania was that which, owing to the devastations of former times and the recent influx of foreign colonists, had come to be racially the least Rumanian part of the whole province. But for the next twenty-two years Rumania had the satisfaction of possessing at least a part of her old Bessarabian dominions.

(5) RUSSO-TURKISH WAR. BESSARABIA RESTORED TO
RUSSIA

The Russian Government, however, waited only for a favourable opportunity of upsetting the settlement made by the Treaty of Paris. Just as in 1871 it succeeded in securing a complete revision of the Black Sea clauses of that Treaty, so a few years later it succeeded in reversing the decision about Bessarabia. Already in September of 1876 the prospect of war between Russia and Turkey loomed nearer; and, in view of the fact that a passage for Russian troops through Rumanian territory would be necessary, the question of Russo-Rumanian relations at once became an urgent one. The Rumanian Prime Minister, Brătianu (father of the present leader of the Liberal party) paid a visit to Alexander II at Livadia, and discussed the question. Already from this conversation Brătianu gathered that Russian policy was aiming at the retrocession of the three districts of Bessarabia lost in 1856. This was no pleasant prospect for Rumania, even if she were to be recompensed with a part or all of the undeveloped province of the Dobruja. But it was clear to Brătianu that, whether he liked it or not, the Russian Government was determined on war with Turkey and on a passage for its troops through Rumania. He looked in vain to the other Powers of Europe for any support for Rumania, and was ultimately forced to accommodate himself to the idea of allowing the Russian troops to pass through. Nor was any help to be found in Turkey, who, under cover of constitutional reform, was seeking to reduce the Rumanian principality to the level of a mere "privileged province." Lest worse should befall, the Rumanian Government hastened to make terms with Russia. One clause of the Treaty concluded on April 16, 1877, provided for the "integrity" of Rumanian territory. Unfortunately, as the Rumanian Government subsequently found, Russia did not consider that this

promise extended to the Bessarabian possessions of Rumania.

On April 24 Russia declared war on Turkey, and Russian troops entered Rumanian territory. The Rumanian army for the time being was refused the privilege of co-operating as an allied force with the Russians, who were confident of being able to achieve their ends unaided. By the beginning of July, moreover, the Rumanian Government were already aware of the fact that Russia had included the re-annexation of Southern Bessarabia as one of its war aims. By the end of the month the non-success of the Russian advance compelled the Russian Government to appeal for the Rumanian assistance that it had hitherto despised, and by the first week of August the Rumanian army invaded Bulgaria. In the course of operations which followed, especially at Plevna, Russia's new Ally contributed greatly to the success of the offensive. By the end of the year the Russian troops were in front of Constantinople; and on January 31, 1878, Turkey was forced to conclude the humiliating peace of San Stefano.

In return for her assistance Rumania looked for some satisfaction by Russia of her demands, which included the occupation of the Danube fortresses, the possession of the delta, and a compensation of about £4,000,000. All these demands were ignored. Instead, the Rumanian agent in Petrograd was for the first time officially made acquainted with the fact that the retrocession of Southern Bessarabia was demanded as a matter of "Russian prestige" and "political necessity." In return compensations in the Dobruja were offered to Rumania. In vain the Rumanian Government strongly protested risking the occupation of the principality by Russian troops. Once again Brătianu turned to the Western Powers for sympathy and aid, but found everywhere an unwillingness to offend Russia. On June 13 the Congress of Berlin met, and on July 13 its resolutions were summed up in the famous Treaty of that name. To this

Congress the Rumanian delegates, Brătianu and Cogălniceanu, were admitted only in an informatory capacity, and were allowed to take part neither in the discussions nor in the resolutions of the Congress. There was, therefore, no redress for Rumanian complaints. Russia's demands for the retrocession of Southern Bessarabia were accepted; and Rumania was forced to agree to the acceptance, as compensation, of the province of the Dobruja as far south as a line drawn east from Silistra, touching the Black Sea just south of Mangalia. This was very reluctantly agreed to by the Rumanian Parliament, the wording of whose resolution ran: "Compelled thereto by the decisions of the Great Powers and in order to raise no hindrance to the ratification of peace, the Chamber empowers the Government to submit itself to the united will of Europe by withdrawing from Bessarabia its civil and military authorities and taking possession of the Dobruja, the Danube delta, and the Serpents' Island." The Rumanian withdrawal from Bessarabia and occupation of the Dobruja followed almost at once, since the Berlin Congress had made its recognition of Rumanian independence contingent upon the cession of Bessarabia.

(6) RUSSIAN RULE. CAUSES OF DISSATISFACTION

Such was the fateful decision of the Congress of Berlin, which, if it gave the Russian Government the satisfaction of extending its frontiers to the Danube, definitely confirmed the differences which, owing to history, already existed between the two nations. Rumania was compelled to cede that part of Bessarabia which belonged to her (and this, as a matter of fact, was the least Rumanian part of the province). The loss of territory was not of so much importance as the fact that national sentiment had been outraged and that the Russian Government had unfortunately played into the hands of those Russophobes in Rumania who maintained that Russia was never to

be trusted. The seizure of Bessarabia accounted in no small measure for the complete reversal of Rumania's policy and the conclusion in 1883 of the secret Treaty of Alliance with Germany and Austria-Hungary.

From 1878 to 1905 Bessarabia relapsed into a mere Government of Russia. National feeling here, as distinguished from the Rumanian districts of Hungary, had no opportunity and no necessity for manifesting itself. The Russian autocracy was too unenlightened or too cunning to force the Rumanians of Bessarabia into a racial and cultural struggle with their non-Rumanian rulers. Beyond a few secondary schools and ecclesiastical establishments there were no means of education available for the population of the province, and consequently there was no medium for maintaining the intellectual life necessary for the intelligent conduct of any nationalist movement. The aristocracy of the province had, during the nineteenth century, succumbed to the allurements of Court and official life in Petersburg and Moscow. From Bessarabia were, in fact, recruited some of the most ardent supporters of reaction in Russia—men of the type of Krupenski and Purishkevich. For the peasants as a whole politics were an affair of little interest. But they were neither worse nor better off than men of their class throughout the Russian Empire; and, till the new current introduced by the Revolution of 1905 had made its way into Bessarabia, the Bessarabian question may be said to have been stifled, or at least dormant.

The Revolution of 1905 for the first time stirred the dead-weight of lethargy which had settled over Bessarabia. A few newspapers in the Rumanian or "Moldavian" language were now suffered to appear, though in the Russian Cyrillic script. Some chance was at last offered for public opinion—that is to say, the opinion of the *intelligentsia*—to make itself heard. In a province, however, where the overwhelming majority of the Rumanian population, as distinguished from the Jews, Germans, and even Bulgars,

are peasants, the ideas of a few intellectuals do not have very much effect on the feeling of the bulk of the people. A certain amount of agitation was spasmodically carried on from over the frontier of the Pruth, and revolutionary literature was from time to time smuggled into Bessarabia; but both the internal Russian and external European situation made any raising of the Bessarabian question in a serious form very unlikely.

The celebration in 1912 of the centenary of the Russian annexation provoked an outburst of indignation in Nationalist circles in Rumania, but there is no proof that this indignation found any real echo among the Bessarabians themselves. The main leaders of the Bessarabian Nationalist Movement were exiles like Constantin Stere, a Bessarabian democrat, who had fallen under the displeasure of the Russian Government and in consequence spent nine years in Siberia, whence he escaped to Rumania to carry on from there an embittered campaign against Russia.

(7) EUROPEAN WAR. CHOICE OF RUMANIA

The outbreak of the European War at once unloosed the tongues of propagandists of various kinds. Whereas the bulk of the Rumanian *intelligentsia* concentrated on their grievances against Austria-Hungary and the necessity for emancipating the Rumanians under the Habsburg yoke, Stere and his supporters, joined by the ex-Prime Minister, Carp, and, in a more discreet form, by a later Prime Minister, Marghiloman, pushed both publicly in the press and privately by every means their advocacy of war at the side of the Central Powers against Russia for the "liberation" of Bessarabia. This was, in fact, the almost daily theme set forth by Carp's paper *Moldova* and the various journals which Marghiloman patronised. It was in this direction that German propagandists naturally sought to turn

the aspirations of the Rumanian people. The attempt, however, was unsuccessful; and on August 27, 1916, Rumania, by her declaration of war on Austria-Hungary, chose indirectly, if not directly, alliance with Russia. It was the hope of Pan-Rumanian enthusiasts that the victory of the Entente Powers would not only deliver Transylvania and the neighbouring lands by destroying the Dual Monarchy, but would deliver Bessarabia by the goodwill of a grateful Russian Government. Unfortunately, however, Rumanian intervention in the war did not alleviate the lot of the adherents of the national cause in Bessarabia.

(8) RUSSIAN REVOLUTION. SCHEMES FOR AUTONOMY

In March 1917 broke out the Russian Revolution. "Self-determination" became the watchword of the supporters of all nationalities, small and great, throughout Europe. Bessarabia was not the first to move, but by the end of May a national Moldavian Committee had been established, and a Congress was held at Kishinev, which decided to demand autonomy and full recognition of the Moldavian language. The National Moldavian Committee modelled itself from the first on the lines of the neighbouring Ukrainian Council. During the early summer they contented themselves with demanding administrative and ecclesiastical autonomy, the use of the Rumanian language, a fairer distribution of land among the Moldavian peasants, the right of Bessarabians to do their military service in Bessarabia and to form local military units, expenditure in the Province of revenue raised there, and the assurance of reciprocal religious, political and economic rights for Moldavians outside Bessarabia (Rumanians calculate there are over 1,000,000 of these in the neighbouring Governments of Kherson and Podolia) and non-Moldavians in Bessarabia. No demand for union with Rumania was

being made at this time. In fact, to the Bessarabian Nationalists there must have seemed far more hope of securing free and full development of the Province in connection with a federated republican Russia than in connection with a Rumania which had not hitherto proceeded to any definite legislation on electoral and agrarian reforms.

The Congress did not confine itself to political manifestoes. The practical work of awakening a Moldavian consciousness was entered on, and in the first fortnight of June a Congress of Bessarabian school teachers was held in Kishinev. This Congress resolved that Moldavian schools should be opened in the autumn in all the Moldavian villages of Bessarabia; the language of these schools should be Rumanian, the books to be printed in the Latin alphabet; Russian should be taught only to pupils in their third year for about six hours a week, but the curriculum of the schools should be standardised with the Russian. As for the towns, schools were to be opened in proportion to the numbers of Moldavian children. Provision was also to be made for the establishment of secondary schools in the towns, and of professorships in "Moldavian" Language, History, and Literature at the Universities of Odessa and Kiev. On June 4, 1917, the first Moldavian people's library was opened in Kishinev.

The movement made considerable progress. By the end of August 350 out of 418 candidates for teacher-ships in the schools had passed a test examination in Rumanian language and history. Rumanian papers, no longer in Cyrillic but in Latin script, had begun to appear, the chief among them being the *Cuvânt Moldovenesc* ("Moldavian Word"). The Moldavian Committee from the first took a whole-hearted patriotic line; in its proclamations it called on its fellow-citizens to defend their newly-won liberties against the invader; and General Shcherbachev (then in command of the Russian armies on the Rumanian front) acceded to the request of the Committee that a

reserve force of 40,000 Bessarabian Moldavians might be formed under its own officers.

(9) RELATIONS WITH THE UKRAINE

The first territorial difficulty arose with the Ukrainian Rada. In a declaration made by the latter early in August, Bessarabia was included within the frontiers of the contemplated Ukrainian State. The Bessarabian Committee indignantly protested; and a deputation was sent to Kiev pointing out that the Ukrainian demand infringed the principle of self-determination. The Rada finally gave way and agreed to the exclusion of Bessarabia from the frontiers of its jurisdiction—a decision which it subsequently confirmed repeatedly, even so late as January 15, 1918, and only eventually reversed after the German intervention in the Ukraine had drawn it within the orbit of the Central Powers.

The National Movement in Bessarabia continued to make headway. Its leaders' original hopes of finding a place in a reformed federal Russian State broke down with the advent of the Bolsheviks to power. From the first these latter showed themselves intransigent towards the National Committee, denying that it represented the true Bessarabia or the oppressed proletariat. Undeterred by this opposition, the Bessarabian leaders went on with their work. On November 3, 1917, 500 representatives of the population met in Kishinev and declared for the autonomy of Bessarabia. A month later, on December 8, a new "Council of the Land" (Sfatul Țării) opened in Kishinev, comprising representatives of all sections of the population of Bessarabia. Of these there were 147, most of them (105) Moldavians. The other nationalities, Ukrainians, Jews, Germans, and Bulgars, were also represented in the proportions of 15, 13, 2, and 4 delegates respectively. The bulk of the Moldavian representatives were delegates either from different Soldiers' Committees or from the Provincial

Council of the Peasants, and, in fact, nearly all of them possess obviously peasant names. A few professors and other intellectuals were also to be found in the Council, and naturally took the lead in voicing its feelings and directing its energies. Among these the most important were Professor Inculeț of Petrograd, and three Nationalist leaders, Ghibu, Pelivan, and Haneș. Important speeches were made by representatives of all the bodies constituting, through their delegates, the Council of the Land; and a Ministry with nine portfolios called the "Council of Directors General" took charge of the administration.

On December 15 the Council proclaimed the "independence of the Moldavian Republic," thus pushing to its logical extreme the principle of self-determination on which their actions had been based. The programme of the Government of the new Republic showed at once its democratic character. Clause I provided that a Constituent Assembly of the Moldavian Republic should be convoked on the basis of universal, equal, direct, secret, and proportional franchise; Clause II that all the land should pass, without compensation to the landlords, into the hands of the peasants; Clause V for liberty of the individual, of the press, and of religious beliefs; Clause VII for the equality of all the nationalities and their autonomy on Moldavian soil; and Clause X committed the Bessarabian Republic to the support of a "peace without annexations and indemnities on the principle of full self-determination of peoples in agreement with the Allies and with the peoples of the Russian Federal Republic."

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

DOWN to the annexation of Bessarabia by Russia in 1812, the Bessarabian Church was naturally an integral part of the Rumanian, and was under the jurisdiction of the Metropolitan of Moldavia. When, by the Treaty of Bucarest, Bessarabia was annexed to Russia, the then Metropolitan of Moldavia, Gavril, left Jassy and established himself at Kishinev. In the same year an Ecclesiastical Court was set up by him, and at the beginning of 1813 he founded a Church seminary at Kishinev. The Russian Holy Synod granted his request for the establishment of a special Eparchy for Bessarabia, including the dioceses of Kishinev and Khotin. The Eparchy, however, at first extended beyond Bessarabia, as the Russian Government was unwilling to allow the idea of even ecclesiastical autonomy to Bessarabia in such a form as to encourage nationalist aspirations. In 1837, after long discussion, the Eparchy was limited to the province; but by this time any chance of an autonomous development of the Bessarabian Church had been destroyed.

By the Treaty of Paris (1856) a part of Southern Bessarabia, as we have seen, was returned to Moldavia, comprising, from the ecclesiastical point of view, about 100 parishes. To meet their needs, the Rumanian Government in 1864 established an Eparchy of the Lower Danube, with the Bishop's See at Izmail. Rumanian schools were opened in the recovered districts, and secondary schools at Izmail and

Bolgrad. All this progressive work, however, was cut short in 1878, when this territory was recovered by Russia. From 1878 till 1917 Bessarabia as a whole was fully incorporated under the jurisdiction of the Russian Holy Synod. The chief ecclesiastic of the Government was the Archbishop of Kishinev, the Archbishopric having been established by decree of the Holy Synod in 1821. In 1859 the parishes of Bessarabia were grouped into circuits, each containing from 25 to 35 parishes. In 1870 there were 833 churches in the Eparchy of Kishinev; by 1890 the number of parishes had increased to 929, with an Orthodox population of 1,220,439. As against this, the non-Orthodox population numbered 421,120, consisting of Jews, Protestants, Old Believers (*Raskolniki*), Roman Catholics, and Armenians. The Orthodox clergy numbered (in 1890) 1,590.

As for the position of the Church in Bessarabia, from the beginning most of the clergy were on the side of the National Movement; and the sittings of the Council of the Land were preceded by a *Te Deum* in the Cathedral, when the Archbishop of Kishinev, Gavril, officiated. In June, 1918, there were certain difficulties, as the Rumanian Government showed itself too anxious to assimilate Church conditions in Bessarabia with those prevailing in other parts of Rumania; and the Archbishop appears to have been deprived of his office for refusing to submit to the jurisdiction of the Metropolitan of Moldavia. A protest was also lodged by Tikhon, the Patriarch of Moscow, against the transference of Bessarabia from his jurisdiction to that of the Metropolitan of Moldavia. The matter has probably not yet been settled finally, and the solution of the question will naturally be bound up with the political settlement of Bessarabia.

(2) POLITICAL

The question of the political developments of Bessarabia is bound up with Russo-Rumanian rela-

tions and with political developments in Rumania for which the evidence is not as yet complete enough to determine exactly the true course of events. Its political and economic bearings cannot, of course, be neglected, but the factor of greatest importance will necessarily be the character and wish of the population. While it is not proposed here to enter into any detailed statistics,¹ it should not be overlooked that the official Russian statistics of 1891 returned, out of a total population of 1,641,599, 1,089,995 Moldavians and 223,251 Ukrainians (Little Russians), the next nationality in numbers. There is, in fact, apart from the extreme northern district of Khotin and the mixed districts of Southern Bessarabia (the Budzhak), a big Rumanian majority in the bulk of the province, and, if it be remembered that in the neighbouring Ukrainian provinces of Kherson and Podolia there are large Rumanian minorities, the Ukrainian claim for a share of the territory of Bessarabia is hardly justified.

(3) EDUCATIONAL

After the annexation in 1812 the Russians had allowed the teaching of Rumanian and the publication of educational and religious books in the Rumanian language; but, from the first, Russian primary schools had been opened in the chief towns of the province. In 1833 a Russian lycée was established at Kishinev, in which at first the study of the Rumanian language was permitted, but afterwards discouraged, and in 1873 suppressed. In 1835 Russian private schools for the upper classes were opened at Kishinev. Practically nothing was done for the peasants, the elementary schools established being mostly for the purpose of providing rudimentary education for the clergy.

In 1890 the number of schools in the province was 669, 13 of them being secondary schools. The number of pupils was about 40,000. The percentage of illite-

¹ See above, pp. 8, 9.

rates was consequently very high among the peasant population, 90 per cent. of whom were Rumanian. It is stated that at the time only 17 per cent. of the men among the Rumanians and 4 per cent. of the women knew how to read and write, whereas with the Germans the percentages were 83 and 81; with the Jews, 65 and 41; with the Bulgars, 42 and 13; and with the Ukrainians, 24 and 7. The fact that the schools employed the Russian language and were not intended to affect the peasants resulted in a total lack of any enlightenment amongst that class.

Some account has been given above (p. 23) of the educational work taken up in the summer of 1917 by the National Moldavian Committee. The use of the Rumanian language in the press and also as a vehicle of instruction is the necessary step to exciting the interest of the population as a whole in education.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads*

THE country roads form the most important means of communication in Bessarabia, carriage by water and rail playing a secondary part. Nevertheless, the roads are in a very primitive state, consisting mainly of soil roads, which become almost impassable in bad weather. Authorities differ as to the nature of the roads in the province. The Association of Commerce and Industry states that there are 90 miles of macadamized road, 144 miles of paved road, and 3,100 miles of soil road. A very recent official military map shows a complete absence of macadamized road, and marks all the main roads as of second-class quality. All authorities agree, however, that the roads are, with negligible exceptions, of poor quality and principally soil roads. The necessity for improving these is very urgent. All the principal places are connected with one another by roads described as "post roads with posting stations." The district near the Austrian frontier is exceedingly badly supplied with roads, which have been neglected, probably for strategic reasons.

(b) *Rivers*

The Dniester, Pruth, and Danube are the navigable rivers that serve Bessarabia.

The *Dniester* is navigable for rafts for the full length of its course in the province, of which it forms

the eastern boundary. Larger steamers only reach the Yampol Rapids, but smaller vessels can proceed from Akkerman to Ushitsa, and there is a passenger service between these two points. The maximum draught of vessels navigating the river is 3 ft. 9 in., and the maximum tonnage 190 tons. Owing to the poor depth of water in the lagoon at the mouth, cargo as a rule goes no further down than Varnitsa, near Bendery, where it is discharged for further carriage by rail. A good authority describes the navigation conditions on the Dniester as "lamentable," and there has been a general decrease during recent years in the number of vessels using the river, which has many defects. It is frozen for about 120 days in the year, and, if the spring rain is deficient, it suffers from lack of water in the summer. Rapids are numerous and somewhat dangerous, and the channels are liable to changes of course, consequent on spring floods. Between 1884 and 1893 the State expended £100,000 on deepening and rectifying the channels.

The *Pruth* is used for rafting for all that part of its course which serves as a boundary between Bessarabia and Rumania, and is navigable for steamers from Leovo to its entry into the Danube near Reni. The depth is very variable; it rises as high as 10—12 ft. in the spring, but in dry seasons falls as low as 2 ft. The river is frozen for about two months in the year. Although the traffic consists to a considerable extent of Bessarabian goods, the vessels and the management of the trade generally are in the hands of Rumanians.

The *Danube* is the boundary between Bessarabia and Rumania from its junction with the Pruth, near Reni, to its mouth on the Black Sea, a distance of about seventy miles. Thirty miles below Reni the Danube splits up to form the delta. The most northerly branch of the river, known as the Kiliya mouth, continues to form the international boundary. The European Danube Navigation Commission did not consider

this branch of importance, and the main artery of traffic is the Sulina mouth in Rumania. For local purposes a channel 12 ft. deep has been dredged in the Kiliya branch from the Polunochnoe entrance, and there is traffic as far up as Kiliya, consisting almost entirely of vessels plying regularly with passengers and goods to and from Odessa. The great sea-going traffic of the Sulina branch affects Bessarabia indirectly, as a good deal of the produce of the south-western district of the country is loaded at Galatz, in Rumania, for shipment abroad.

(c) *Railways*

The railways in Bessarabia form part of the Russian South Western Railway system, which is a State-owned concern. There are three sections of line in all:—

(1) Bendery—Kishinev—Korneshti—Ungeni. The beginning of this line is at Razdyelnaya, a junction on the main line from Odessa to Kiev, from whence, passing Tiraspol, it enters Bessarabia at Bendery. The full length from Bendery to the Rumanian frontier at Ungeni is 104 miles.

(2) Bendery—Kainari—Kulinskaya—Trajan's Wall—Reni. This line was built in 1877 at the time of the Turko-Russian War for purely military purposes, and the full length of 178 miles was constructed in the record time of fifty-eight days. The line originally ran to Galatz, in Rumania, but the section Reni—Galatz was torn up by the Rumanians after the conclusion of peace.

(3) Ribnitsa—Byeltsy—Oknitsa—Nowosselizy. This line serves the north-western portion of Bessarabia, and carries traffic to the Austrian frontier in Bukovina. It is connected with the main Odessa—Kiev line at Slobodka and with the Austrian railways at Nowosselizy. The line was built in 1892—1894, and is 245 miles long. It has an additional feeder coming from Shmerinka on the Kiev—Odessa main line, *via* Mophilev, to Oknitsa.

There are, therefore, some 550 miles of railway, all single line, in Bessarabia. The mileage is not large for the size of the country, but the fact that it is a boundary province accounts to some extent for the lack of railways, as the Russian Government has discouraged the building of a close network of lines on its western frontiers. Nevertheless, it is questionable if much extension of railways in so purely agricultural an area as Bessarabia would pay on a commercial basis, and the best means of improving communication would probably be the macadamizing of all main roads, so as to permit heavy motor traffic.

A new line is under construction from Leipzigskaya, on the Bendery—Reni line, *via* Berezinskaya, Pavlovka, Sarata, and Nikolaevka-Novorossiiskaya to Akkerman.

The Russian South Western Railway serves several provinces besides Bessarabia, and the following figures show the extent of its operations:—

| Length of Line. | Gross Annual Receipts. | Nett Annual Receipts. | Weight of Traffic per annum. |
|------------------------|--------------------------------|----------------------------------|---------------------------------|
| <i>Miles.</i> 2,604 | <i>Roubles.</i> 73 millions | <i>Roubles.</i> 30·4 millions | <i>Tons.</i> 15 millions. |

The Bessarabian mileage is one-fifth of the whole of this railway system, but the figures for traffic are probably about one-tenth, as the carriage of goods by rail in the province is on a small scale. There are two passenger trains daily for the whole system, with two additional trains between Bendery and Kishinev.

(d) *Posts, Telegraphs, and Telephones*

The postal and telegraph system in Bessarabia forms part of the Russian Imperial system. No special

figures for the province are issued, but in general the agricultural districts of Russia are poorly served.

Kishinev and Akkerman have telephone systems, but there is no trunk working of telephones.

(2) EXTERNAL

(a) Ports

Although Bessarabia has a coast-line of some seventy miles on the Black Sea, it has no port of any size. Akkerman, on the Dniester lagoon, has a small traffic in barges to Odessa, and exports the local surplus of grain and wine which is brought in by road, but it has no railway or loading facilities. There is a daily passenger service between Akkerman and Odessa.

There are three towns on the Kiliya branch of the Danube on the Bessarabian side—Kiliya, Izmail, and Reni. The last named is the only one possessing a railway; none of them has any loading facilities: steamers tie up near the river-bank and load by means of gang-planks. The trade done is insignificant, consisting of the shipment to Odessa of local produce, brought by road, and the import of manufactured goods and colonial produce for local consumption.

The true ports of Bessarabia are Odessa and Galatz. The former supplies the imports *via* Akkerman or by rail *via* Bendery or Ribnitsa, and exports the surplus grain, wine, &c., from the southern and eastern parts of the province. Galatz acts as the port of export for the region near the Pruth.

(b) Shipping Line, and Cable Communications

The only line of steamers interested in Bessarabian traffic is the Russian Danube Steam Navigation Company, which provides regular services for goods and passengers from Odessa up the Danube to Reni.

Telegrams for abroad must be sent to Odessa or

Petrograd for transmission, there being no cable in Bessarabian territory.

There are no wireless stations in the country.

(B) INDUSTRY

(1) LABOUR

The only kind of labour which is required in any quantity in Bessarabia is agricultural labour. As so large a proportion of the cultivable area is owned by peasants, who, with the help of their families, work their own land, the question of supply of labour applies only to the working of the lands of the estate-owners and monasteries. Bessarabia has a fairly dense population for an agricultural region, and more than any neighbouring province. At the same time wages for agricultural work are lower than they usually are in the black-soil country. These two facts combined would suggest that supply of labour is not lacking; but, as the surplus labour is provided mainly by those Little Russians who are rendered landless, there is a probability that it is of inferior quality.

The conditions of agricultural labour would probably not be considered good when compared with Western European standards, but it must be remembered that good food is extremely plentiful and cheap, and is often included in the labourer's pay.

There is no record of any appreciable movement of the Bessarabian population away from the province; nor has there been any immigration since the early days of the nineteenth century, when colonies of various types, including Germans, were placed on the land to take the places of emigrating Turks and Tatars. Although of foreign origin, and, if Germans, not of the Orthodox Russian Church, these immigrants have been long enough in the country to become fairly well absorbed; and the Germans among them, having left their native land previous to its consolidation into

an empire, have no political connection with the country of their forefathers. But the land is full of place-names like Leipzigsкая, Hoffnungsthal, Friedensthal and Wittenberg, which indicate the original home of these colonists.

(2) AGRICULTURE.

(a) *Products of Commercial Value*

Bessarabia is one of the most fertile provinces of Russia, the surface consisting to a very great extent of black soil. On the higher lands there are some clay soils. For some distance inland from the coast there is a belt of sandy soil, and there is some alluvial soil near the Pruth and Dniester. About 67 per cent. of the total surface is cultivated, this being about the average for South Russia.

Some 23 per cent. of the agricultural land is stated to be under hay and pasture. South of Trajan's Wall, which runs from Leovo, on the Pruth, to Bendery, on the Dniester, is a famous pasture country known as the Budzhak steppes, which raises great numbers of cattle.

There are ten staple farm crops:—

Maize occupies the first place, providing on an average 32 per cent. of the total produce of the ten staple crops. It is grown mainly in the centre and north-west of the province.

Spring wheat accounts for 19 per cent. of the total produce, and *autumn wheat* for 16 per cent. These crops are grown all over the province, principally on the nobles' estates.

Barley is a valuable crop, accounting for 18 per cent. of the total produce. It is grown mainly in the south.

Rye is a much smaller crop than is usual in South Russia, and contributes only 8 per cent. of the total.

Oats also occupy a low place, being 3 per cent. of the total.

Potatoes, hemp, linseed, and buckwheat are also grown, but in very small quantities.

A *tobacco* crop is raised in the district north-east of Kishinev, but it tends to diminish.

Returns for the principal crops are as follows:—

| — | Mean for 1901–1910. | Year 1914. |
|------------------|---------------------|--------------|
| | <i>Tons.</i> | <i>Tons.</i> |
| Maize .. . | 650,000 | 916,000 |
| Barley | 402,000 | 534,000 |
| Wheat | 607,000 | 403,000 |
| Rye | 182,000 | 138,000 |
| Potatoes | 91,000 | 128,000 |
| Hay | 205,000 | 124,000 |
| Sugar-beet | 14,812 | 6,785 |
| Tobacco | 2,309 | 2,450 |

In general the area under cereal crops is increasing, while that under hay and tobacco is decreasing. Sugar-beet is a small crop, and is decreasing. For the period 1901–1910 there was a yearly average of 5,500,000 acres sown with cereal crops. In 1914 6,100,000 acres were sown. The mean harvest of cereals for 1901–1910 was 1,856,000 tons; in 1914, 2,019,000 tons were reaped.

The average cereal harvest for the eighteen years from 1895 to 1912 places Bessarabia tenth on the list of the fifty Governments of European Russia, irrespective of their size; and of every 1,000 tons of cereals produced in European Russia Bessarabia produces 27·3 tons, a high figure considering its size.

Viticulture has for a long time been an important branch of agriculture in Bessarabia. In 1914 164,000 acres were bearing vines. The crop of grapes is mainly used to make wine, but the cultivation of dessert varieties is also conducted with success. (See also below, p. 42).

The introduction of *silkworms* was recently undertaken, and a certain success has been obtained, chiefly in the Izmail district, but the result so far has been meagre.

Live-stock of all sorts is a great asset of the province, and cattle-breeding is carefully looked after,

particularly by the German and Bulgarian colonists. Pedigree stock has been imported from time to time, and the present native breed is of good quality.

Horses are increasing in number, as they have supplanted cattle for farm-work.

The number of *horned cattle* is stationary, probably because the working breeds are not so much in demand.

The number of *sheep* also has remained stationary for some years past, but sheep-breeding, nevertheless, remains very important.

Pigs have greatly increased in numbers. Improved stock has been imported, and the herds are of great value. A surplus for export remains after supplying local wants, and commands a good market across the Austrian frontier.

Generally speaking, Bessarabia is in a better position than the neighbouring provinces in the matter of live-stock, the increase being not only actual but relative to the population, which is not the case generally in South Russia.

The production of *fruit* and *vegetables* occupies a large area of soil and a great deal of the activity of the population in Bessarabia. Gardening is universal, almost every peasant having a small plot. The larger landed proprietors often possess gardens of 35 to 40 acres in extent, and some of the monasteries have still larger gardens. In cases of fruit-culture on a large scale it is the practice to plant alternate rows of trees and grape-vines. The principal fruits are *plums*, *apples*, *pears*, *cherries* and *apricots*. Quantities of *melons* and *pumpkins* are also grown. The garden-land is spread all over the province, except in the district south of Trajan's Wall, which is pasture-land. A surplus of great value is exported, much of it in the form of dried fruits.

(b) *Methods of Cultivation*

The method of land tenure (described below, p. 40) has a great influence upon the quality of the cultivation. In general, the peasant of South Russia, working

upon land of which he is the temporary owner, is principally concerned to secure a cereal crop, and his land is worked upon the three-field system, under which each unit of land is sown one year with winter-sown grain, the following year with spring-sown grain, and in the third year lies fallow. A continuance of this rotation is very exhausting to the soil, and only virgin black soil will stand it for any length of time. The peasant frequently owns no live-stock, and there is, therefore, a scarcity of animal manure. In these circumstances the *nadyel* land (see below, p. 40) tends to become less productive as time goes on. In 1906 an agrarian law was passed which was to have the effect of transferring the ownership of land from the local commune (*mir*) to the individual, and making it permanent, with the hope that, by giving security of tenure, the method of cultivation could be raised to a more intensive system.

In Bessarabia the above-mentioned conditions are modified, since the peasants are in many cases of Moldavian, German, or Bulgarian origin; their methods are less reckless, and their thriftiness has enabled them to practise a more intensive rotation, and to become owners of a valuable farm live-stock.

The land owned by the nobles and religious institutions is rationally farmed on the whole, and is largely responsible for the great surplus crops of cereals.

The high level of cultivation in Bessarabia is shown by the figures for the production of cereals, which averages 1,505 *puds* per square verst, while the average in South Russia is 995 *puds* per square verst.

The introduction of up-to-date agricultural machinery has made exceptional progress, aided by the activity of the *zemstvo*, and except in the north-west corner of the province the old wooden plough, flail, &c., are extinct.

Irrigation is carried out on the alluvial soil near the banks of the rivers in order to produce vegetable crops, but only by individuals, and on a primitive system. No

general scheme of irrigation is in existence or has been suggested.

(c) *Forestry*

The general character of Bessarabia is that of a treeless country, but some of the northern hills are covered with woods, and one area in the centre, comprised in the districts of Kishinev, Orgyeev, and Bendery, is thickly wooded. Beech, oak, and ash are the principal timber trees, and the best supply of building timber in South Russia comes from these districts. In all, 671,000 acres are under the care of the State forest authorities, and about 32,000 acres are entirely State-controlled.

(d) *Land Tenure*

The system of land tenure in Bessarabia does not differ much in principle from that which prevails in other provinces of South Russia. Nearly half the land (48·6 per cent.) consists of *nadyel*, that is, the land conveyed from the great estates of the nobles in 1861, when the serfs were freed, to distribute to the newly enfranchised peasants for cultivation. This land is not in general held by individuals, but by *mirs*, or local communes, who portion it out to individuals. The *mir* at intervals undertakes a redistribution of the *nadyel* in order to provide for the wants of a new generation, many of whose members would otherwise be landless.

The population has increased rapidly, and the result has been a gradual decrease in the amount of *nadyel* per head. It is possible to increase the amount of *nadyel* land by purchase from the estate-owners, and this has taken place in Bessarabia to a greater extent than in any other province of Russia. Peasant holdings have increased between 1863 and 1897 from 32,400 acres to 828,900 acres, that is, the acreage has been multiplied twenty-five times. The general average increase in Russia in the same period has been tenfold.

The explanation of this contrast lies in the fact that, although a Russian province, Bessarabia is inhabited

by a majority of people of non-Russian race, who are considerably more industrious, thrifty, and less conservative in method than the Russian, and especially the Little Russian. In the south of the province there are large and prosperous colonies of Germans and Bulgarians, introduced into the country and furnished with land subsequent to the Napoleonic wars, at a time when the country was deserted wholesale by the Turks and Tatars. These settlers are on a higher level of prosperity than the peasants of the neighbouring provinces or the Little Russians of Bessarabia itself. They practise a more intensive system of farming, and exploit well the gardening and vine-growing possibilities of the province.

These colonists, together with a special class of peasants known as "State peasants," who were placed on the land about the same period, now rank as "peasants," and their land is classed as *nadyel*, although in some respects their system of tenure differs from that of the freed serfs.

43·2 per cent. of the soil is privately owned, mainly by the nobility, but there is an absence of the very large private estates so common in other parts of Russia. The average size of these holdings is 2,350 acres, while the average for Russia generally is 2,700 acres. The nobility in this province have parted with a great deal of their land to peasant owners of late years, and the indebtedness on their estates is the highest in all Russia, except in one province, Kursk.

8·2 per cent. of the soil is owned by the State and Church. More than half of this amount is owned by foreign, i.e., Moldavian, monasteries, which exist under the special condition that a portion of their revenue shall be used for the education and religious needs of the province.

(3) FISHERIES

Fishing is of importance only along the sea-coast and in the adjoining lagoons. At Akkerman, on the

Dniester lagoon, there is a population which lives principally by fishing and fish-preserving. Mackerel, herring, and anchovy are the principal fish taken.

In the Danube, the waters above Vilkov are sufficiently valuable to be reserved and rented by the State. The principal centres are Vilkov and Kiliya. The chief fish taken are the *beluga* and sturgeon. Figures exist which show the value of the Russian Danube fishery as £42,000 annually, but the returns are admitted to be incomplete.

(4) MINERALS

No minerals of importance are, or have been, worked in Bessarabia. A small coalfield near Akkerman has not been exploited. Limestone, on the banks of the Dniester, and also a little granite are quarried for building purposes, the limestone being considered excellent.

(5) MANUFACTURES

Manufactures have attained no great importance in Bessarabia. The total annual value of manufactured products is under £300,000, and less than 3,000 people earn their living by factory labour.

Flour-milling is the principal industry, and employs the most hands. These are employed in 98 different mills, many of them attached to the various foreign agricultural colonies in the south of the province.

Wine is produced on a large scale in Bessarabia. The principal district is Akkerman, the presses being in the town of Akkerman and in the German colony of Shaba near by. The Bendery district comes next in importance, and after that Izmail. In the last-named district, Izmail town, the Bulgarian colony of Bolgrad and the town of Kiliya are the centres. Reni district also has some wine presses.

For a long time past efforts, both public and private, have been made to improve the quality of Bessarabian wine. Foreign experts have been introduced and a

school of viticulture, with chemical laboratories, has been founded at Kishinev. The wine remains, nevertheless, an inferior product; it does not compete with foreign wines, and is never sold in first-class establishments in Russia, but only in special wine-bars of the cheaper sort.

There are four agricultural machinery works, all small.

Eight concerns are occupied in the leather, skin, and allied trades.

Five saw-mills are working; the principal one at Bendery is supplied with timber floated down the Dniester, and coming mainly from Bukovina across the Austrian frontier. The worked timber is despatched by rail.

A little wool is spun in four factories, but no weaving is done.

The domestic or *kustarni* industries are not specially well developed in Bessarabia on the whole, but one or two domestic industries are peculiar to the province. Carpet-making is the most notable. The Bessarabian *kustarni* carpet has a good sale locally and in the neighbouring provinces. Elaborate designs are undertaken. Tapestry is also made; some pieces, made by the workers on large estates working in concert, are valued at hundreds of pounds. The dyes are made locally from vegetable matter, and the secret of their production is jealously guarded.

The elaborate and highly decorative costumes worn by the German and Bulgarian colonists of both sexes are specially made by itinerant tailors working single-handed.

Harness-making is a speciality of the German colonists.

Coopering is done mostly by gypsies, who make the vats, troughs, and other vessels required in the wine industry, as well as barrels, pails, and wooden agricultural tools.

Basket-making and straw-plaiting are also *kustarni* industries of some importance.

(C) COMMERCE

(1) DOMESTIC

(a) *Principal Branches of Trade*

Bessarabia is so entirely devoted to agriculture that commerce only employs a very small proportion of the population. Such commerce as there is consists principally in the disposal of the surplus production of grain and flour, fruit, wine, and brandy. This takes place chiefly at Kishinev, and to some extent at Bendery and Akkerman.

The grain and flour trade is largely in Jewish hands. Small merchants in various centres buy up the surplus and despatch it by the most convenient route for foreign shipment.

The wine trade also is carried on by Jewish dealers, who travel round buying up the produce of small estates, and market the wine in Kishinev, Odessa, or Kiev.

The wants of the peasants that are not provided for by themselves are well supplied by a large army of pedlars, who purchase stores in Kishinev and cover the province in their wanderings.

(b) *Towns, Markets, and Fairs*

Kishinev is a busy centre for imported goods of all kinds, and has a number of large wholesale warehouses for dry goods, hardware, agricultural machinery, &c., some of them being branches of big Odessa houses. Trading is largely in the hands of Jews, who form nearly 50 per cent. of the population of Kishinev.

The principal live-stock market is at *Byeltsy*, whence cattle in great numbers are despatched to Austria and Hungary.

There were formerly a number of important fairs in Bessarabia, but these appear to have lost almost all

their commercial importance of late years, and serve more as pleasure outings for the rural population.

(2) FOREIGN

(a) *Exports*

As no figures for the exports or imports of single separate Russian provinces are available, only a general idea of the subject can be given. Bessarabia shares with the other black-soil provinces of Russia the advantage of being able to export a large surplus of staple breadstuffs after providing for the wants of the population, and in proportion to its acreage appears to contribute above the average to this export. There is no means of tracing the destination of this surplus, but, owing to the poorness of the means of communication, most of it undoubtedly takes the easiest and most natural route. This means that the produce of the south-western portion of the country is shipped *via* the Pruth and Galatz to foreign destinations; that from the south-eastern portion goes to Akkerman and thence to Odessa, mostly for foreign shipment; and the remainder is mainly conveyed by rail route to the Odessa—Kiev Railway, and is not traceable further.

Fruit, both fresh and dried, is largely exported, finding its market in Russia.

There is an active export of cattle over the Austro-Hungarian frontier at Nowosselizy.

A great deal of wine is despatched from Bessarabia, but it remains mostly in the neighbouring provinces or goes to one or two large cities of Russia. It is not exported by sea. Of an average annual production of 32 million gallons of wine in the Province, over half is despatched to other parts of Russia.

(b) *Imports*

The imports consist mainly of manufactured goods of all kinds, principally dry goods, agricultural

machinery, and chemical manures. Much coal is also imported. It should be remembered that the overwhelming mass of the population are peasants, who provide for most of their own wants, and whose purchasing power is small.

(c) *Customs and Tariffs*

Bessarabia is subject to the conventional tariff of the Russian Empire, which is in general highly protective. There is a short free-list of imports which includes items of some importance to the Province. These are certain specified types of agricultural machinery, live cattle, horses, and cattle-feed consisting of by-products of manufacture. Certain chemical fertilisers, and chemicals necessary in the tanning industry, are imported under low duties.

(d) *Commercial Treaties*

Various commercial treaties have been concluded between Russia and other European countries since 1893, which modify the conventional tariff of Russia in exchange for concessions. Those directly affecting Bessarabia appear to be the following:—

(1) A treaty with Serbia which admits Serbian fruits at a lowered rate and thereby probably creates some competition with Bessarabian fruit.

(2) A treaty with Portugal by which the cork products of that country are admitted with a 20 per cent. rebate of duty. Bessarabia's wine industry probably benefits by this supply of cork for bottling.

(3) A treaty with Germany by which 135 articles of German manufacture have a preferential rate on entering Russia. The effect of this is not directly traceable in Bessarabia, but in general it stimulates the importation of German manufactures in all Russian centres.

(D) FINANCE

(1) *Public Finance*

The share of the Russian Imperial revenue contributed by Bessarabia in two recent years was as follows:—

| | | | |
|------|-----|-----|---------------------|
| 1906 | ... | ... | 12,183,000 roubles. |
| 1910 | ... | ... | 15,842,000 roubles. |

The amount contributed shows a steady expansion under almost all headings for the five years 1906—1910 inclusive.

The total revenue of European Russia for the year 1910 was 1,522,800,000 roubles.

Bessarabia, although a frontier province, has a *zemstvo* organisation, a somewhat unusual circumstance. The *zemstvo* revenue was in 1906, 3,223,000 roubles and in 1910, 4,100,000 roubles. The bulk of this revenue is from land tax and is expended on local civil administration, the upkeep of district roads and bridges, and the health service. The *zemstvo* has permission to make expenditure on public instruction and rural medical service. It also enters into trading operations in agricultural machinery, improved seed, and pedigree live-stock. The central and local committees of the Bessarabian *zemstvo* had borrowed in 1910 about 1,400,000 roubles for these purposes.

The towns of Kishinev, Akkerman, Bolgrad, Izmail, and Kiliya have each a separate municipal administration and can raise taxes for urban purposes. There is a municipal debt of 3,545,000 roubles, of which the sum of over 3,000,000 roubles has been incurred by Kishinev. The revenue of the town of Kishinev in 1910 was 1,210,000 roubles.

The *mirs* or local communes raise some taxes for local purposes, such as the upkeep of roads, the building of granaries for the preservation of surplus supplies of provisions, and insurance against fire and inundation. For the building of churches, schools, and

hospitals money may also be raised. These local taxes are collected and distributed very irregularly.

(2) *Currency*

Bessarabia has the coinage of Russia. The rouble before the war had the value of 2s. 1½d., with exchange of 9·45 on London. It is divided into 100 kopeks.

(3) *Banking*

The Imperial State Bank of Russia is the most important financial concern in the country, in that it controls the currency and note issue, being the only note-issuing bank. It undertakes general banking and bill-broking, besides having close relations with the Treasury for revenue, loan, and other purposes. The bank makes large loans to private banks; in 1910 the amount on loan was £189,000,000. It also advances money on merchandise, principally on grain, and thus does its share towards financing the surplus crop in Bessarabia. The bank has one branch in the Province, at Kishinev.

The State savings banks carry out the function that their title suggests, and also undertake certain minor insurance operations. Branches can be opened in all towns and villages. Their management is supervised by a committee appointed by the Imperial State Bank. These banks are in general successful and show a fair working profit.

Other banks can be divided into those interested in land and agricultural finance, and those having commercial and industrial interests.

The Land Bank of the Nobility was founded after the liberation of the serfs in 1861 to assist the nobility, whose estates were partly expropriated at that time, with advances to enable them to cultivate the remainder of their estates with paid labour and generally to tide over the difficult period subsequent to the liberation.

The Peasants' Land Bank, founded in 1883, was designed to assist peasants and communities to purchase land to increase the *nadyel*. It also advances money for the purchase of agricultural machinery, live-stock, &c.

There is a joint-stock agrarian bank, one of a series formed in the last 20 years. It is known as the Bessarabia-Taurida Bank and operates in the two provinces. Its resources are as follows: share capital £700,000, reserves £500,000, bonds in circulation £11,000,000. This bank exists for the purpose of loaning money on agricultural security, and is a profitable concern.

Mutual credit associations also perform some of the operations of banking. There are two in Kishinev. Their function is the provision of local credit in order to finance crops, build granaries, and purchase agricultural machinery. The Imperial State Bank encourages these associations, and under a law of 1910 is empowered to advance money to them at 5 per cent. including sinking fund, the principal being repayable in 20 years.

The joint-stock trading banks have not the importance in Bessarabia that they possess in the neighbouring provinces. The following are represented in Kishinev: Russo-Asiatic Bank, Petrograd International Bank of Commerce, Union Bank, and Kishinev Town Bank. The Odessa Discount Bank has a branch at Akkerman. The Russian Bank for Foreign Trade and the Siberian Bank have one or two agencies.

Foreign capital does not appear to have been invested in Bessarabia, nor is there much to attract it, as manufacturing industry and commerce are almost absent, and, so far, no prospect offers beyond land investments, which are not profitable enough to interest the foreigner.

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MAPS

Bessarabia is covered by three sheets (Bucuresti, L. 35; Odessa, L. 36; Jitomir, M. 35) of the International Map, published by the War Office (G.S.G.S. No. 2758) on the scale of 1:1,000,000. A special map of Bessarabia, on the same scale (G.S.G.S. No. 3692), has also been issued by the War Office in connexion with this series.

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I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

UKRAINA or Okraina (meaning 'border') appears originally to have formed the 'limes Rossicus' or 'Polonicus', i. e. borderland between the Russians, Poles, Turks, and Tatars, the centre of which lay in the lower reaches of the Dnieper valley. The connotation of the word has varied widely. When in process of time this borderland was colonized, and with the rise of Great Russia was extended in many directions, the old name Ukraina or Ukraine was loosely applied to the whole of the enlarged area where the Little Russians (Ruthenians) were in an increasing majority. This extension of the term was facilitated by the modern rise of Little Russian literature, especially in Austrian Galicia, where the use of the Little Russian language was permitted, and 'Ukrainian' rapidly passed from archaeological into literary currency as the equivalent of Little Russian in general.

The connotation of the Ukraine adopted here is that of the General Proclamation of the Ukrainian National Council, issued November 20, 1917, in which it is definitely stated: 'Therefore we announce: to the territory of the National Ukrainian Republic belong the lands where the majority of the population is Ukrainian—Volhynia, Podolia, Kiev, Chernigov, Poltava, Kharkov, Yekaterinoslav, Kherson, and Taurida (without the Crimea).'¹

The Ukraine as thus constituted consists of three provinces, the South-west Territory (*Yugo-Zapadny*

¹ On March 29, 1918, the German Government recognized, in accordance with the Treaty of February 9 and the Ukrainian Proclamation, the nine Governments mentioned above as belonging to Ukraine proper, as well as parts of Cholm and Grodno.

Krai), Little Russia (*Malorossiia*), and part of South or New Russia (*Novorossiia*). The South-west Territory is formed by the three Governments (*gubernii*) of Volhynia (area, 27,700 square miles), Podolia (16,219 square miles), and Kiev (19,686 square miles); Little Russia by those of Chernigov (20,233 square miles), Poltava (19,265 square miles), and Kharkov (21,035 square miles); and New Russia contains the Governments of Yekaterinoslav (24,478 square miles), Kherson (27,337 square miles), and Taurida (23,312 square miles, of which 9,704 belong to the Crimea). It should be noted that the Ukraine by this definition excludes Bessarabia, the Don Cossacks' Territory, and the Crimea, all of which are included in New Russia.

The Ukraine thus occupies an area of more than 190,000 square miles. It is bounded on the north by the Governments of Voronezh, Kursk, Orel, Smolensk, Mohilev, Minsk, and Grodno; on the west by the recently created Russian Polish Government of Cholm, Eastern Galicia, and Bessarabia; on the south by the Black Sea, the Crimea, and the Sea of Azov; on the east by the Don Cossacks' Territory.

Except on the west and in the south the boundaries can hardly be said to coincide with natural divisions. Nor are they completely ethnographical, for the ethnographical area extends into Kursk, Voronezh, Grodno, Minsk, Cholm, and Eastern Galicia.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

The Ukraine falls naturally into three divisions: Polyesia in the north, the Black Sea plateau, extending from the western boundary to the Dnieper, and Little Russia on the left bank of the Dnieper.

Polyesia (of which only the southern part actually falls within the boundaries of the Ukraine as claimed by the Little Russians) occupies primarily the basin of the Pripet, a right-bank tributary of the Dnieper. The central portion consists of an almost unbroken

series of marshes, generally known as the Pinsk marshes, which form one of the most impassable, unfertile, and unhealthy areas in Russia. There is, however, higher ground both to the north and south of the marsh region. In the south there are the Volhynian Heights, running from Cholm (in Russian Poland) through Lutsk, Rovno, and Dubno to Novograd Volynsk, a plateau rising to a height of over 1,000 ft. near Dubno. The high country is well wooded and suitable for agriculture.

The *Black Sea plateau* falls into four sections. The first or northern section is practically equivalent to the southern part of Volhynia. The highest point (over 1,200 ft.) occurs at Krzemenietz, from which the northern edge of the plateau extends east at a lesser elevation, passing north of Staro Konstantinov to Berdichev and Kiev.

The second section is that of the area between the Southern Bug and the Dniester, occupying a large part of Podolia. This section consists of a high plateau gradually declining from north-west to south-east, and includes along the western frontier the Miodobory Hills, running in a southerly direction into Bessarabia. The highest point is in the Proskurov district, 1,186 ft., and in this region there are also some marshes. Over the whole section are scattered numerous deep valleys, intersected by rapidly flowing watercourses at the base of well-wooded hills. The southern boundary of this section is formed by the Rivers Kedyrna and Yagorlik, tributaries of the Bug and Dniester respectively.

From this river line the third or maritime section of the Black Sea plateau extends down to the Black Sea. This section contains various small rivers flowing roughly parallel to each other in a south-westerly direction, such as the Tiligul and the Kuyalnik.

The fourth or Zaporozhki section is the largest of the four. Its northern part is divided into two by the River Sinyukha, a tributary of the Bug. The western half rises to 800 ft., the eastern to 750 ft. Towards

the north this plateau slopes down into the plains of Polyessia around the Pripet, Irpen, and Teterev; on the west it is bounded by the Southern Bug; on the east by the Dnieper. The southern part of the section, in which the plateau levels down to 300 ft., assumes the uniform shape of flat steppes, and the rivers flow for the most part sluggishly in shallow, extensive, marshy valleys, rich in ponds.

Little Russia is a continuation of the heights in the Governments of Smolensk, Orel, and Kursk, and in general slopes from the north-east to the south-west. The Governments of Chernigov and Poltava form undulating plains, of which the former varies from 750 ft. in the north to 370–600 ft. in the south, and the latter has a somewhat lower altitude. The Government of Kharkov in general is a table-land with an elevation of 300–400 ft., though heights of over 850 ft. are reached. It is divided into two by the valley of the Northern Donets. Marshes abound in all parts of this section except in the Government of Kharkov. The rivers flow in deeply excavated valleys, of which the right banks have the appearance of hilly tracts, while low plains extend along the left.

Coast

The Ukrainian coast, though small in extent, is of the very greatest importance, not only to the Ukraine but to the whole of Russia. It forms an outlet for a vast amount of commerce, a great deal of which is dealt with by the port of Odessa.

A very characteristic feature of this part of the Black Sea coast is the existence of *limans*. These *limans*, which are similar in formation to the Venetian Lido and to the *haffs* of the Baltic coast, consist of small or large inlets at the mouth of a river, e. g. the Dnieper and the Bug, separated from the main body of the sea by a strip of land (*peresyp*) with a narrow entrance. The shore is in places fairly high, but is everywhere easily disintegrated by the action of the weather.

River System

The Ukraine as a whole consists of portions of the basins of the Rivers Dnieper (with its tributary the Pripet), Dniester, Bug, and Donets, the last named being the largest affluent of the Don.

The *Dnieper*, which rises in the Government of Smolensk, has a total length of about 1,410 miles, and drains an area of 202,140 square miles. It first touches Ukrainian territory at Loyev on the western border of Chernigov, and thence flows in a south-easterly direction to Yekaterinoslav, in a shifting channel which varies greatly in depth and breadth. At Yekaterinoslav the river turns south and then south-west, forming a succession of rapids, so that navigation in this part is only possible when the river is in flood. Artificial canals enable small vessels to proceed when there is low water in the channel. The Dnieper enters the Black Sea below the town of Kherson, by a *liman*, into which the Bug also discharges.

The chief tributaries of the Dnieper are: on the right bank, going from north to south, the Berezina, which runs through the Government of Minsk; the Pripet, with its many affluents, among them being the Styr and the Strumen, all of which overflow their banks and help to form the system of marshes which is more fully described in *Russian Poland*, No. 44 of this series (p. 15), and the Ingulets, which flows a little above Kherson into the Dnieper near its outlet to the Black Sea.

On the left bank the chief tributaries are the Sosh; the Desna, which flows through Chernigov into the Dnieper just above Kiev; and the Samara, which joins the river at Yekaterinoslav.

There is a regular service of passenger steamers on the Dnieper both above and below the rapids, and also along the Pripet as far as Pinsk.

The *Dniester* rises in Austrian Galicia, and only the last 515 miles of its course, with a drainage area of 16,500 square miles, belong to Russian territory. It reaches the Ukraine provinces near Kamenets Podolsk,

and then forms the frontier line between the Governments of Podolia and Kherson and the neighbouring province of Bessarabia. It receives no very important tributaries in the Ukraine, though there is a fair number of smaller ones. Navigation is interrupted by the Yampol rapids. For ordinary river craft an artificial canal affords a passage here, but steamboats cannot pass upstream. The depth of the water has lately been increased by a more scientific system of regulation.

The *Bug* rises in Russian Poland and reaches the Ukraine near Vlodava, to the north-west of Volhynia. It forms for some distance the boundary between the Ukraine and Russian Poland, and then flows through Austrian Galicia into the Ukraine at Volochysk. Its winding course follows a south-easterly direction, entering the Black Sea by a *liman*.

The chief tributaries of the Bug within the Ukraine provinces are, on the right bank, the Kedyrna and the Chichekleya; and on the left bank the Ingul.

The *Donets* rises in the Government of Kursk, and enters the Ukraine to the north of Kharkov. It then flows to the south-east, leaving the Ukraine at the extreme north-eastern corner of Yekaterinoslav.

(3) CLIMATE

Climatic statistics should generally be regarded as approximate.

The following recent figures are available for the South-west Territory—Tarnopol, although actually in Galicia, being taken as typical of the south-west of Volhynia, Berdichev of the south-east of Volhynia and the central part of the Government of Kiev, and Volkovints and Kamenets Podolsk of the Government of Podolia:

| <i>Average Temperature (Fahrenheit).</i> | | | | |
|--|-----------------|--------------|--------------|--|
| | <i>January.</i> | <i>July.</i> | <i>Year.</i> | |
| Tarnopol | 22·5° | 66·0° | 44·1° | |
| Berdichev | 22·3° | 65·5° | 45·0° | |
| Volkovints | 20·5° | 65·9° | 44·4° | |
| Kamenets Podolsk | 26·1° | 68·5° | 47·5° | |

The climate of Volhynia is more moderate than many eastern parts of Russia in the same latitude. Relatively mild winters are so common that the winter crops remain entire, and the climate is very beneficial for agriculture. Spring comes early (March), summer (at the end of May) is cool, autumn lasts long, and settled winter only begins in December. There are few droughts or periods of excessively wet weather.

The average annual rainfall in Volhynia varies from 20 to 24 in., in Podolia from 15 to 24 in., and is 20 in. in the Government of Kiev. July is the rainiest month, and after that June, May, and sometimes March.

The following are recent climatic statistics for Little Russia :

| <i>Average Temperature (Fahrenheit).</i> | | | |
|--|-----------------|--------------|--------------|
| | <i>January.</i> | <i>July.</i> | <i>Year.</i> |
| Chernigov . . . | 20·9° | 68·0° | 44·8° |
| Poltava . . . | 19·4° | 70·3° | 45·7° |
| Starobyelsk . . . | 18·7° | 73·6° | 46·0° |
| Kharkov . . . | 18·7° | 70·7° | 45·1° |

The climate of Little Russia is closely connected with that of Central Russia, with its conflict between east and west winds. Winter tends to be long, though not so severe as in Central Russia, with frequent thaws, which sometimes greatly damage the winter wheat. The arrival of spring is apt to be uncertain, and is sometimes accompanied by a return of cold weather. Summer is moderately warm, and in the south-east sometimes hot. Autumn, with east winds, is remarkably dry.

The annual rainfall is inadequate, averaging 22 in. in the Government of Chernigov and 20 in. in that of Poltava, and varying between 21 in. in the west and 16 in. in the east and south-east of that of Kharkov. Droughts are common in the latter Government.

The climate of Odessa may be taken as more or less typical of New Russia, the mean temperature in January being 25·3°, in July 72·7°, and that for the whole year

49.3°. Drawbacks for agriculture in New Russia are the prevalence of north and east winds and an irregular and insufficient rainfall. The average rainfall at Yelisavetgrad is 17 in., at Odessa 16 in., at Lugansk 15 in., and at Nikolaev 14 in. The rains in April and May decide the harvest. June is the rainiest month, but from May to September there are droughts. Most places are largely dependent upon wells and ponds constructed in the ravines, which are frequent on the steppes.

The climate of the Ukraine, as a whole, is therefore continental, i. e. the variation between summer and winter temperatures is very great. Sudden variations of temperature are frequent. The rainfall is by no means abundant, and there is a progressive decline towards the south and south-east. The fact, however, that the bulk of the rainfall occurs in the summer favours agricultural operations, even where the annual amount of rainfall is comparatively low. It is only in New Russia that the country suffers seriously from drought.

(4) SANITARY CONDITIONS

The Ukraine is very backward in regard to sanitary conditions. Less than half the towns have a satisfactory water-supply, and a very small percentage of them a regular drainage system.

Typhoid, diphtheria, and malaria are very prevalent. To the great majority of the people in the country, doctors are inaccessible, and even in the towns good hospitals and adequate medical attendance are very rare. In the matter of cleanliness, however, the Little Russians compare favourably with the Great Russians.

(5) RACE AND LANGUAGE

Race

The population of the Ukraine is composed of a mixture of various races and nationalities, those chiefly represented being Little Russians, Poles, Jews,

Germans, Moldavians, and Bulgarians. There are also a certain number of Cossacks, but these are of Little Russian origin. The large majority of the inhabitants of the Ukraine are Little Russians, as will be seen by the tables given below. The origin of the Little Russians and their precise relation to the other branches of the Slav family are still a matter of dispute, but it is possible that they are of purer stock than the Great Russians, though they have assimilated Polish and Tatar elements, while the Great Russians have been largely influenced by the Finns.

The *Poles* live chiefly in the western Ukraine, occupying the Governments of Volhynia and Podolia, and the Kiev and Berdichev districts in the Government of Kiev. The large estates are chiefly in their hands; and they are tenants of many others, while they also fill important positions in the sugar trade and in general carry much weight in the social and economic life of the western and central Ukraine. They are Roman Catholics.

The *Jews*, who form a most important commercial, industrial, and political group, are found in the Governments of Volhynia, Podolia, Kiev (except in the capital), Chernigov, Poltava, Kherson, Yekaterinoslav (except in Yalta), and Taurida. The town of Berdichev, in particular, is a Jewish stronghold. Many of the largest estates are mortgaged to the Jews, although they tend to live in the towns, where they succeed as good business men and middle men. Statistics for the Jewish population in the Ukraine given in the *Recueil de matériaux sur la situation économique des Israelites de Russie, d'après l'enquête de la 'Jewish Colonisation Association'*, 1908, do not show a large increase over the figures of 1897.

As regards the *Germans*, Swabian colonies have existed at Odessa since 1803, and the famous Liebental agricultural colony between the Dniester and the Black Sea was founded in 1812. Below the falls of the Dnieper and in Taurida there are Mennonite colonies from West and East Prussia. There are also German agriculturists

in Volhynia, who have done excellent work in draining the marshes. The Germans make their agriculture pay, and commercially they have penetrated to every town in the Ukraine. They also control many of the large estates and possess considerable financial influence. Their religion is Lutheran, Roman Catholic, or Mennonite. From a comparison of the table on p. 11 with figures for 1915 given by Dr. Max Friederichsen, it appears that the Germans in the Ukraine have decreased by about 50,000 since 1897. Many have emigrated to America; others have been assimilated.

There are many *Moldavians* engaged in agriculture in the districts of Tyraspol, Yelisavetgrad, Ananiev, and Kherson. They form 6 per cent. of the population in the Government of Kherson, and 0·2 per cent. in that of Yekaterinoslav. Their religion is Orthodox Greek, as is also that of the *Bulgarians*. The latter are to be found chiefly in the districts of Berdyansk, Melitopol, Tyraspol, and round Odessa, and make excellent farmers. Though they speak Bulgarian, most of them understand Russian.

The *Cossacks* are energetic farmers, and have extensive farms. In their methods they are far in advance of the ordinary Little or Great Russians.

Among other nationalities are some *Czechs* in south-west Volhynia, and a certain number of *White Russians*, chiefly in the northern part of the Government of Chernigov.

The following are the figures given by the official Russian census in 1897 for the different races in the governments composing the Ukraine :

RACE

| | | <i>Little Russians.</i> | <i>Great Russians.</i> | <i>White Russians.</i> | <i>Jews.</i> | <i>Germans.</i> | <i>Moldavians.</i> | <i>Poles.</i> | <i>Bulgarians.</i> |
|-------------------------|---|-----------------------------|---|----------------------------|--------------|-----------------|--------------------|---------------|--------------------|
| <i>Government.</i> | | <i>Total.</i> | | | | | | | |
| 1. Volhynia | . | 2,989,482 | 2,095,579 (i. e. 70 per cent. of total population) | 104,889 | 3,794 | 394,774 | — | 184,161 | — |
| 2. Podolia | . | 3,018,299 | 2,442,819 (81 per cent.) | 98,984 | — | 369,306 | 26,764 | 69,156 | — |
| 3. Kiev | . | 3,559,229 | 2,819,145 (80 per cent.) | 209,427 | 5,389 | 430,489 | — | 68,791 | — |
| 4. Chernigov | . | 2,297,854 | 1,526,072 (66 per cent.) | 495,963 | 151,466 | 113,787 | — | 3,302 | — |
| 5. Poltava | . | 2,778,151 | 2,583,133 (93 per cent.) | 72,941 | — | 110,352 | — | 3,891 | — |
| 6. Kharkov | . | 2,492,316 | 2,009,411 (81 per cent.) | 440,936 | 10,258 | 12,650 | — | 5,910 | — |
| 7. Yekaterinoslav | . | 2,113,674 | 1,456,369 (69 per cent.) | 364,974 | 14,052 | 99,152 | 9,175 | 12,365 | — |
| 8. Kherson (rural) | . | 2,733,612 | 1,462,039 (54 per cent.) | 575,375 | 22,958 | 322,537 | 147,218 | 30,894 | 25,685 |
| Odessa | . | 403,815 | 37,925 (9 per cent.) | 198,233 | 1,267 | 124,511 | 488 | 17,395 | 600 |
| 9. Taurida ¹ | . | 1,447,790 | 611,121 (42 per cent.) | 404,463 | 9,726 | 55,418 | — | 10,112 | 41,260 |

¹ The Little Russians only claim the mainland of the Government of Taurida. Allowing a third of the population in 1897 to represent residents in Taurida without the Crimea (which is an under-estimate), a total of about 22,867,000 is reached for the population in the whole of the Ukraine. Out of this total the Little Russians in the Ukraine amounted in 1897 to 17,043,613 or 74 per cent.

Since the official census of 1897 various official estimates of the population in the Ukraine have been issued; they do not distinguish between the different branches of Russians. According to the official estimates of January 1912 and 1915 the totals for the nine Governments in the Ukraine were as follows:

| | 1912. | 1915. |
|---|------------|------------|
| Volhynia | 3,995,700 | 4,241,800 |
| Podolia | 3,882,700 | 4,127,600 |
| Kiev | 4,635,700 | 4,988,000 |
| Chernigov | 3,083,500 | 3,148,900 |
| Poltava | 3,673,100 | 3,906,200 |
| Kharkov | 3,329,700 | 3,452,000 |
| Yekaterinoslav | 3,214,900 | 3,537,300 |
| Kherson | 3,547,500 | 3,806,900 |
| Taurida (without the Crimea) ¹ | 982,800 | 1,066,650 |
| Total | 30,345,600 | 32,275,350 |

It is well known that the birth-rate of the Little Russians is higher and steadier than that of the Great Russians. But, even allowing for a mere continuance since 1897 of the same ratio between the two, the total of Little Russians in the Ukraine in 1912 can be fairly estimated at 23,500,000.

There are also large numbers of Little Russians in other Governments of Russia. Figures for these Governments in 1897 were as follows:

| <i>Government.</i> | <i>Total Population.</i> | <i>Little Russians.</i> | <i>Per- centage.</i> |
|-------------------------------------|------------------------------|-----------------------------|--------------------------|
| Grodno | 1,603,409 | 363,000 | 23 |
| Kursk | 2,371,012 | 527,778 | 22 |
| Voronezh | 2,531,253 | 915,883 | 36 |
| Bessarabia | 1,935,412 | 379,698 | 20 |
| Kuban Province (Caucasus) | 1,918,881 | 908,818 | 48 |
| Stavropol (Caucasus) | 873,301 | 319,817 | 37 |

In the same year there were also 719,655 Little Russians in the Don Territory, 133,115 in the Government of Astrakhan, 76,928 in other parts of the Cau-

¹ The birth-rate has been more rapid on the mainland than in the Crimea; hence 50 per cent. of the population is allowed to Taurida alone.

casus, and 304,261 in parts of the old Governments of Lublin and Syedlets (now incorporated in the single Government of Chołm). Thus in 1897 there was in European Russia a grand total of at least 21,692,766 Little Russians.

Austria and Hungary also contain considerable numbers of Little Russians, or as they are often called in these parts, Ruthenians. Official figures of 1910 give 3,208,092 in Galicia, 305,101 in the Bukovina, and 472,587 in certain north-eastern counties in Hungary, i. e. a total of 3,985,780 Little Russians.

Accurate statistics for the full, up-to-date total of Little Russians are not available. Reliable German figures estimate the present total of Little Russians as at least 30,000,000, which is also borne out by unofficial Little Russian and Polish figures.

Language

The whole language question has been somewhat exaggerated owing to its inevitable connexion with politics. It is asserted by many that Little Russian is a separate language from Great Russian, though on the other hand many declare that it is only a dialect. It should be noted that in 1905 the Petrograd Academy of Science recognized the value of the study of the Ukraine dialect.

(6) POPULATION¹

Distribution and Density

The *Russian Year Book* for 1916 gives the following estimate for the total population in the towns and in the country respectively on January 1, 1913 :

| | | <i>Town</i> | <i>Country</i> |
|-----------|--------------------|--------------------|--------------------|
| | <i>Government.</i> | <i>Population.</i> | <i>Population.</i> |
| Volhynia | | 293,300 | 3,777,200 |
| Podolia . | | 308,900 | 3,646,400 |
| Kiev . | | 744,500 | 3,919,100 |
| Chernigov | | 321,100 | 2,787,700 |

¹ See also Appendix I, p. 103.

| <i>Government.</i> | <i>Town Population.</i> | <i>Country Population.</i> |
|-------------------------------------|-----------------------------|--------------------------------|
| Poltava | 363,500 | 3,352,900 |
| Kharkov | 516,200 | 2,851,500 |
| Yekaterinoslav | 406,500 | 2,883,600 |
| Kherson | 1,017,500 | 2,592,800 |
| Taurida (with the Crimea) | 447,200 | 1,559,300 |

It is apparent from these figures that a large proportion of the population of the Ukraine is still engaged in agricultural pursuits.

Many parts of the Ukraine are very thickly populated. The most densely populated Governments are as follows: Podolia, 243; Kiev, 236; Poltava, 192; Chernigov, 154; Kharkov, 160; Volhynia, 146; Yekaterinoslav, 135; and Kherson, 132 persons per square mile.

Movement

The population of the Ukraine increases more steadily than that of Great Russia. The following figures are given by the official statistical annual (1914) for the year 1912:

| | <i>Births. total.</i> | <i>Births. per 1,000.</i> | <i>Deaths. total.</i> | <i>Deaths. per 1,000.</i> | <i>Increase. per 1,000.</i> |
|--------------------------|---------------------------|-------------------------------|---------------------------|-------------------------------|---------------------------------|
| Volhynia | 154,685 | 39.0 | 72,287 | 18.1 | 20.9 |
| Podolia | 145,401 | 37.4 | 73,254 | 18.9 | 18.5 |
| Kiev | 182,024 | 39.3 | 92,109 | 19.9 | 19.4 |
| Chernigov | 116,411 | 37.8 | 59,972 | 19.5 | 18.3 |
| Poltava | 136,951 | 37.3 | 64,801 | 17.6 | 19.7 |
| Kharkov | 151,064 | 45.4 | 73,349 | 22.0 | 23.4 |
| Yekaterinoslav | 159,233 | 49.5 | 72,995 | 22.7 | 26.8 |
| Kherson | 157,622 | 44.4 | 92,227 | 26.0 | 18.4 |
| Taurida | 85,913 | 43.7 | 44,080 | 22.4 | 21.3 |

The average mortality is lower in the towns than in the country, owing to the fact that the more robust elements of the population are attracted to the towns, leaving the old men, women, and children behind.

Infant mortality is often as high as 50 per cent.; this is due to ignorance, insufficient feeding, and the fact that mothers return to work in the fields or factories within a few days of child-birth. The imperfect system of medical aid prevents many cases of births and deaths from ever being officially reported.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 859. Invasion of the Variags.
- 880. Power concentrated at Kiev.
- 988. Vladimir, prince of Kiev, accepts Christianity.
- 1015. Death of Vladimir and division of his dominions.
- 1169. Title of Grand Duke assumed by the Prince of Suzdal.
- 1315. Kiev, Volhynia, and Chernigov pass to Lithuania.
- 1340. Halich passes to Poland.
- 1386. Marriage of Prince Jagiello of Lithuania with Queen Yadviga of Poland.
- 1569. Union of Lublin ; establishment of Polish domination.
- 1648. Beginning of Cossack wars.
- 1654. Treaty of Pereyasavl.
- 1667. Treaty of Andrusovo.
- 1686. Conquest of Zaporogia.
- 1708. Rebellion of Mazeppa.
- 1709. Battle of Poltava.
- 1734, 1764. Powers of Cossacks curtailed by Peter the Great and Catherine the Great.
- 1763, 1783. Ukrainian peasants made serfs.
- 1768. Rising of the Koliivshchina.
- 1772. First Partition of Poland ; Halich-Russ ceded to Austria.
- 1793, 1795. Second and Third Partitions ; division of the remainder of the Ukraine between Russia and Austria.
- 1825. Liberal propaganda commenced.
- 1831. Polish rising.
- 1846. Beginning of Nationalist movement.
- 1861. Abolition of serfdom.
- 1900. Formation of the Revolutionary Ukrainian Party.
- 1917. Proclamation of Ukrainian Republic.
- 1918. Government of General Skoropadski.
Establishment of a Directory.

GENERAL SKETCH OF HISTORY

The history of the Ukraine is not, until the seventeenth century, a connected chronicle of events which happened to one people of one culture, language, and religion ; it is rather the story of events which have taken place in the land which is now called the Ukraine.

The Eastern Slavs, with an admixture of Norman blood, who inhabited the Ukraine from the eighth to the thirteenth century, almost lost their contact with the Slavonic world after 1239, the year which saw the beginning of the Tatar invasions. Owing to the nature of the country—mostly level steppe—there was a more permanent assimilation of the invaders with the inhabitants here than in the Slavonic forest country to the north and west. After the invasions the literary language of the country became amalgamated with the Great Russian literary language; and the educated classes became polonized or russified. From the Tatar invasions to the middle of the seventeenth century the land appears in history as the territory or colony of its various neighbours, chiefly Poland. (About the middle of the seventeenth century, however, the masses of the people, fully amalgamated with the Asiatic invaders, began, largely through Cossack influence, to feel a difference between themselves and the foreign ruling class. From this time onwards, an Ukrainian nation may be said to have existed.

The whole history of the Ukraine may be divided into the following four periods :

- (A) The Kiev-Russ State (not Russia), 850–1340, organized by the Scandinavian conquerors.
- (B) Lithuanian and Polish dominations, 1340–1795.
- (C) Russian domination, 1795–1917.
- (D) Ukraine since the Russian Revolution, 1917–19.

(A) FIRST PERIOD : KIEV-RUSS ; THE TATARS
(850–1340)

The territory of the Ukraine has been the scene of many short-lived dominations, such as the Scythian, the Sarmatian, the Gothic, and, in the fourth and fifth centuries A.D., the Hunnic. The Slavs appeared shortly after the Huns. Just before the appearance of the Scandinavian Variags on the Dnieper, between the seventh and tenth centuries, a powerful

Turkish Khanate of Khazars on the Don and lower Volga subjugated from time to time some of the Eastern Slavs, while other branches of them on the San and Dniester were subdued by the Avars and the Lakhs (Poles). In 859 the Variags appeared under the leadership of Rurik. They had already organized the Slavonic state of Novgorod in the north (852); and they brought with them the name of Russ (Ruotsi), which had been given to them by the Finns. The organization of the various states which originated in towns set up by these Scandinavians was mainly directed towards opening up and protecting trade communications between Constantinople and Scandinavia through the then already well-known commercial town of Kiev.

But already, in 880, Oleg, the successor of Rurik, and Igor, Rurik's son, had concentrated their power in Kiev itself, whose prince assumed the title of Grand Duke. From this centre they not only enlarged their territory by the addition of Slavonic lands, but even threatened Constantinople. Thence onwards the history of the Scandinavian invaders is blended with that of the Eastern Slavs, whose national consciousness was not very strong at that time. The Scandinavians adopted an East Slavonic language but a Byzantine culture, and formed a privileged class of warriors (*druzhina*) and princes. The princes of Kiev extended their power over the Eastern Slavs of the Dnieper and Bug, and occasionally over the Eastern Slavs of Halich (Red Russ or Ruthenia), who otherwise paid tribute to the Poles or were ruled by their own princes. Until the time of St. Vladimir, the first prince of Kiev to accept Christianity (988), there were certain small independent East Slavonic princes in the neighbourhood of Kiev. Vladimir kept the control of the government in his own hands, in so far as external affairs, i.e. trade and war, were concerned; but otherwise the princes ruled in their own towns. Thus the Kiev principality was rather a confederation of states than one united state.

After the death of St. Vladimir in 1015, his dominions were divided among his children; and thenceforward

the central government tended to become weaker and the power of the separate duchies to increase at its expense. Yaroslav, under whom the 'Russ Land Codex' (*Russkaya Pravda*) was compiled, united for a short time all the Russ lands; but, after his death in 1054, dynastic strife undermined the political and commercial importance of the Kiev state.

Several independent duchies overshadowed Kiev after the reign of Yaroslav; and still more was this the case after the death of Prince Vladimir Monomakh in 1125. The Scandinavian upper class had by this time become slavonized; and the cultural influence of Byzantium was stronger than that of Scandinavia among the Eastern Slavs. Three political centres replaced Kiev. In the north Novgorod recovered its old importance and developed its colonizing activity in the direction of northern Europe and Asia. In the south the Prince of Halich assumed the headship of Halich, Volhynia, and, to some extent, Chernigov; until in 1315, Kiev, Volhynia, and Chernigov passed to Lithuania, and Halich, in 1340, to Poland. The third political centre was formed by the princes who emigrated from Kiev-Russ and formed principalities along the Upper Volga and Oka, in Finnish lands. The leadership of these lay first with the Prince of Suzdal, who, in 1169, tried to subdue Kiev, and assumed the title of Grand Duke; then it passed to Vladimir-Suzdal, and finally to Moscow.

(B) SECOND PERIOD: LITHUANIAN AND POLISH DOMINATION (1340-1795)

(a) *Division between Poland and Lithuania (1340-1569).*—During this period Poland possessed Halich-Russ, where the Poles built a line of fortresses, proclaimed religious toleration for the Greek and Latin churches in 1447, brought Lvov to pre-eminence, and introduced the Magdeburg law into the towns. The Lithuanian dukes, who since 1315 had acquired the duchies of Chernigov, Volhynia, and Kiev, were the

rivals of the Poles in Podolia. The success of the Lithuanian conquest was due partly to the fact that the conquerors often adopted the language of the Ukraine (White Russian dialect), and in many cases joined the Greek Orthodox Church. In this way the Poles and Lithuanians succeeded to the Tatars. While the north-western Ukraine remained in actual fact the property of the local princes, under a Lithuanian or Polish central government, the southern steppes were nominally claimed by the Polish Crown; actually, however, the half-nomadic population of Volhynia and Podolia had migrated to the steppes and colonized them along the Lower Dnieper (Nizh). The Black Sea littoral was still dependent on Turkey. The keenness of the rivalry between the Lithuanians and the Poles in the Ukraine was blunted by a common fear of the Germans and of the growing power of Moscow. In 1386 the Lithuanian Prince Jagiello married the Polish Queen Jadwiga, so that the union between Poland and Lithuania originated in a purely dynastic arrangement. The Union of Lublin (1569) consolidated this dynastic connexion, united Lithuania and Poland into a bipartite state, and attached Volhynia, Podolia, Kiev, and Podlasia to the Polish state. In these newly acquired Ukrainian lands the Poles recognized, in spite of Cossack opposition, both the Latin and the Greek Churches.

(b) *Polish Domination (1569-1772).*—To protect the frontiers of the enlarged state, the Polish kings arranged the 'registration' of the Cossack communities living in the Nizh (Lower Dnieper), called also Zaporogia, i. e. the 'country beyond the rapids', and in the Northern Ukraine. The Cossacks who were placed on the register were paid by the King, and recognized the authority of the Crown 'hetman' (chief), but otherwise lived in almost complete independence in villages and military camps, and were unwilling to adopt any permanent state ties. A series of rebellions under local Cossack leaders against the Polish administration from 1592 onwards secured reforms from the Polish Crown, while the Polish attempts to colonize the Lower Dnieper

and to control Zaporogia were more and more vigorously opposed by the Cossacks. The Muscovites meanwhile colonized the eastern steppes, now called also Ukraine (between the Dnieper and the Don), and gave support to all Cossack refugees from the Polish Ukraine.

The Cossack Wars (1648–1712), known also as ‘The Ruin’, differed from the previous rebellions in that they were better led, and that the Cossacks under Chmielnicki had the support of the Ukrainian peasants, who rose against their Polish overlords, and of some of the Ukrainian *szlachta* (landlords), who, although favoured politically by the Polish Government, joined the others on the ground of religious fellowship. The year 1648 marks the beginning of a national consciousness among all the Ukrainian people. Chmielnicki was, however, in 1653 compelled to apply to Moscow for protection. The Treaty of Pereyaslavl between Chmielnicki and the Tsar Alexis in 1654, while recognizing a certain amount of self-government for the Ukrainian and Zaporogian armies, brought the people of the Ukraine, as well as the military communities of Zaporogia, under a control from Moscow stricter than that formerly exercised by the Poles. The Ukrainian Cossacks retained their own system of government, and were allowed to receive foreign envoys from anywhere except Poland and Turkey, but they swore allegiance to the Tsar; while, from the beginning, the Tsar’s envoy to Pereyaslavl, Buturlin, refused to confirm by oath the Tsar’s allegiance to the treaty. Hence sooner or later most of the Hetmans, including Chmielnicki himself, rebelled against Moscow, in which revolts they were invariably supported by Turkey and Poland.

The failure of Moscow to subjugate the Ukrainians permanently, Turkish interference, and various dynastic reasons, led Poland and Moscow to make the Treaty of Andrusovo (1667). According to this treaty, Moscow obtained the country on the left side of the Dnieper (Trans-Dnieper and Kiev) and Poland the country on the right side of the Dnieper (Cis-Dnieper). Zapo-

rogoria or Nizh was left in theory under the protection of both, but in practice it served as a land of refuge for those whose plans for autonomy had been defeated. These defeated rebels organized the famous *Sich*, a kind of military and ascetic order, from which women were absolutely excluded, and which involved complete social equality, adherence to the Orthodox Church, and allegiance to the Zaporogian community. The Ataman (Hetman), or head of the organization, was elected for a year, and had the power of a dictator in time of war. In peace the supreme authority rested with the Rada, or Council. Zaporogian formed an obstacle in the way of Russia's obtaining the Black Sea littoral, and was therefore conquered by Moscow in 1686. Soon afterwards the Cossacks rose for the last time, under Mazeppa (1708-9), and received help from Sweden, then at war with Russia. But the Russian victory at Poltava in 1709 decided the fate of the Cossacks. Their privileges were suppressed; and, though in 1710, by the Pact of Bendery, Sweden promised independence to the Ukraine and Zaporogian, the country was again divided between Poland and Russia, in accordance with the terms of the Treaty of Andrusovo. The *Sich* was suppressed, and was finally abolished in 1775.

When the victorious Peter the Great moved to the left (i.e. Russian) bank of the Dnieper, he brought with him the majority of the population of the right bank. The Cis-Dnieper or Polish Ukraine thus became depopulated; and the Polish administration, by granting special privileges to the colonists from Poland, Halich-Russ, and Trans-Dnieper, fostered the growth of *slobodas* (land-holdings with special privileges). The power of the *szlachta* was now limited by national Ukrainian risings against the Catholic Polish landlords and the Jews, as well as by pillaging expeditions from the Lower Dnieper. The most eventful rising was that of the Koliivshchina in 1768. It was cleverly manipulated by Catherine the Great; but after some 200,000 Poles, Jews, and Uniat Ukrainians had been massacred, the Empress intervened in favour of the Polish land-

lords, who cared more for the interest of their houses than for the Polish State.

After the Treaty of Andrusovo the Trans-Dnieper country was known as Hetmanshchina, i. e. the country dependent on the Hetman. The Ukrainians in the Hetmanshchina were grouped into ten regiments, in which the colonels had full administrative power. In 1734 Peter the Great withdrew the self-governing privileges of the regiments, abolished the dignity of the Hetman, and organized a kind of Ministry for Cossack affairs, called the Malorossiyan (Little Russian) Collegium, in which all colonels had to be Great Russians. Peter II and Elizabeth restored the dignity of the Hetman, but it was finally suspended by Catherine the Great in 1764. The country was colonized with Kal-mucks, Serbs (in 1732 and 1753), and Germans, to whom important privileges were granted in 1763 and 1764. In 1775 Catherine distributed large quantities of Zaporogian territory among Russian nobles and officials.

(c) *The Ukraine during the Partitions of Poland (1772–95).*—In the First Partition (1772), Austria received Halich-Russ, i. e. the *voyevodstvas* of Russ and Belza, called by the Austrians Galicia, and occupied northern Moldavia. Russia took the eastern part of White Russia. In 1786 Austria acquired the Bukovina. The Cis-Dnieper Ukraine, or the *voyevodstvas* of Volhynia, Kiev, and Chernigov, protested against this partition. Between the First Partition and the Second (1793) a great economic, intellectual and political revival in Poland led to reforms in the Polish Ukraine. The Jesuit schools, which had been dissolved in 1773, were replaced by State schools under the Polish Minister of Education; Krzemenietz and Winnica were the two intellectual centres around which the schools and industries were grouped. But all these reforms in the Polish Ukraine were made with a view to the retention of the country as a Polish province. At the same time, in the Trans-Dnieper country, the Russians, in spite of local protests, had carried out a ruthless russification.

After the final victory over the Turks in eastern Europe and the annexation of the Crimea in 1783, Russia surrounded the Ukrainians on all sides. By the decrees of 1763 and 1783 the Ukrainian peasants were made serfs; and in 1785 the Ukrainian nobles were raised to the privileges of the Great Russian nobles. In the same year, Cossack regiments were organized on the model of the Imperial regiments; and, from 1780 onwards, the administrative division into Imperial 'Governments' was introduced. General education suffered a marked relapse. Thus in 1768, shortly after the suppression of the last Hetman, in the districts forming the present Chernigov Government, there were 134 schools, or one school for 746 people, while in the same districts in 1875 there were only 52 schools, or one school for 6,730 people.¹

At the Second Partition in 1793, Russia obtained most of the Cis-Dnieper Ukraine, i. e. the *voyevodstvas* of Kiev, Braclav, Podolia, and the eastern part of Volhynia, as well as the rest of White Russia and half of Lithuania. In the Polish insurrection which followed that partition, the *szlachta* and many peasants of the Cis-Dnieper Ukraine supported the Polish leader, Kosciuszko. In the Third Partition, Russia took the remaining part of Volhynia and the eastern part of Chołm, as well as the rest of Lithuania, while the greater part of Chołm was taken by Austria. By the Treaty of Paris (1815), all the Chołm land and Podlasia passed to Russia; and Eastern Galicia and the Bukovina were the only lands inhabited by Ukrainians retained by Austria.

(C) THIRD PERIOD : RUSSIAN DOMINATION, 1795-1917

(a) *Protests against Russification* (1795-1846).—After the Third Partition of Poland in 1795, the Russian Government of set policy favoured the aristocracy,

¹ M. Hrushevski, *Sketch of the History of the Ukrainian Nation*, 3rd ed., Petersburg, 1911, p. 417.

whether Polish or Ukrainian, who were loyal to the Tsar, and to some extent also the Ukrainian peasants, at the expense of the Polish-Ukrainian middle class of landowners (*szlachta*), or the middle-class urban *intelligentsia* of Ukrainian nationality, who generally used the Russian language. Hence it was in these two latter classes that the spirit of protest still existed in spite of its apparent hopelessness. The expression of this spirit of protest is to be found in the literature it produced, though this has obvious traces of Polish and Great Russian influence. Ukrainians such as Kapnist, Gogol, Velichko, Hanenko, Artemenski, and Hrebinka, were educated at the universities of Moscow and Kharkov, and wrote in the Russian language. To the same literary school belong Ivan Kotlarevski (1769–1839), the ‘father’ of Ukrainian literature, the first to write in Ukrainian as well as in Russian, and the Pole, Chodakowski, who was the first to study and collect the folk-lore of the Ukraine.

In the west of the Russian Ukraine a school of Ukrainian Polish poets arose, who wrote in Polish, but took as their subject the Ukraine and her liberation from Russia. Eminent among these were A. Malczewski, S. Goszynski, B. Zaleski, and M. Czaikowski. Between 1803 and 1825, Adam Czartoryski and Tadeusz Czacki, two Polish Liberal nobles, acting for the Polish Education Committee under the then Liberal government of Alexander I, started numerous schools radiating from two chief centres—Krzemenietz, where a Catholic lyceum, and Human, where a Uniat college was founded. In 1818 a Masonic Lodge was instituted in Poltava, with the object of bringing about an understanding between the Liberals of Poland, the Ukraine, and Russia; and in 1825 an important meeting was held at Jitomir (*Slovyanskoye Sobranie*) of Dekabrist Russians, Poles, and Ukrainian *intelligentsia*—the latter still using the Polish and Russian languages. From 1825 dates the propaganda of the *lirniki* or Liberals, who wandered with their harps among the people like mediaeval bards, instilling into the Ukrainian peasants the ideas

of the abolition of serfdom and of freedom from Russia. Most of these Liberals, as for example Rzewuski and Padurva, were Poles, or the products of Polish culture.

The Polish Rising of 1831.—This rising received much active support from the *intelligentsia* in the part of the Ukraine concerned; and the greatest of Ukrainian poets, Shevchenko (born 1814), was influenced by Polish middle-class Liberalism and Polish literature. The University of Kharkov, founded in 1805, had until 1831 many Polish professors lecturing in their own language. But this Polish cultural and political influence was checked when the Polish colleges in Vilna and Krzemenietz were suppressed in 1832, and a Russian university was founded at Kiev in 1834. This latter was at first distinctly governmental and official in character, but by the middle of the nineteenth century it had produced a new school of writers of far more active revolutionary tendencies than were ever manifested by the Kharkov circle. Apart from the Polish and Dekabrist risings and the literary attempts of polonized and russified Ukrainians, the first part of the nineteenth century is marked by a passive submission of the masses to the military and autocratic regime of Russia.

(b) *Russian, Polish, and Austrian Rivalry; Growth of Nationalism in the Ukraine (1846-1914).*—The modern nationalist movement in the Ukraine began with the foundation of a purely Ukrainian society called the 'Cyril-Methodius Brotherhood' in Kiev about 1846. This society had not merely the literary object of promoting the Ukrainian language, until then only in oral use among the peasants, but also a far-reaching political programme. Friendly feelings towards Polish and Russian Liberals still existed, and a federation of autonomous Slavonic states was aimed at. In this federation the Ukraine was to form two states, West Little Russia and East Little Russia. The creators of the society were the most prominent Ukrainian literary men, the poet Shevchenko, the historian Kostomarov, and the journalist Kulish.

In 1847 they and many others were arrested by the Russian Government; and the society, which never was legal, was suppressed. At the same time in the Austrian Ukraine the Government, following for the time being an anti-Polish policy, was popular with nationalist Ukrainians. Supported by the Government, the Galician Ukrainian peasants rose and massacred the Polish landlords. In 1846-7 serfdom was abolished in Galicia and Bukovina; a measure which was naturally received with favour by the Ukrainians, of whom a great majority were peasants. Count Stadion, the Austrian Governor of Galicia, organized in Lvov (Lemberg) the *Holovna Rada Ruska*, a nationalistic Ukrainian body, anti-Polish and anti-Russian, but supporting the Austrian Government. The same year brought, as a reaction against Austrian manœuvres, a short-lived Ukraino- (Ruthen) Polish agreement, made at the Slavonic (Pan-Slav) Congress in Prague. This again displeased the Russian Government, which hurriedly organized a society, the *Galitsko-Russkaya Matitsa*, in Lvov, with the object of beginning an anti-Austrian and anti-Polish, but Russophil, propaganda among the Galician Ukrainians. This society was especially active in 1866, when the Poles obtained autonomy in Galicia, with control over the Ukrainians. Russophil propaganda in Galicia had begun with the visit of Pogodin, the Russian Pan-Slavist, in 1835; but the Russophiles organized themselves only after the 'mission' of T. Lebedyntsev, who, as the agent of the Russian Government, came to enrol Ukrainians for anti-Polish propaganda in Cholm in the Russian Ukraine.

While encouraging the Ukrainians in Austria in their nationalist feelings, Russia tried to suppress the Ukrainian movement in her own territory. The result of this was seen during the Crimean War, when an Ukrainian Pole, M. Czaikowski (Sadyk Pasha), tried, with the help of Turkey, to revive the *Sich* and organized his 'Cossacks' to fight against Russia. Nevertheless the call to the colours during the recent war

roused in the Russian Ukraine a spirit demanding the abolition of serfdom and the restoration of old Cossack freedom. The chief centre of Ukrainian propaganda during the period 1860-90 was in East Galicia, though the 'Cyril-Methodius Brotherhood' received more support among the *intelligentsia* of the Russian Ukraine, and proceeded on more nationalist lines. In the East Ukraine appeared the journal *Osnova* (1862-3). Sunday schools held in the Ukrainian language were established (1861) in Russia, and societies were founded which called themselves literary, but were really political and nationalist in their aims. The most prominent of these were the 'Prosvita' on both sides of the Ukraine (1868), the 'Gromada' in Kiev (1870), and finally the 'Shevchenko' (1873) in Lvov and Kiev, which, under the leadership of the Ukrainophil *intelligentsia*, started the movement for establishing a uniform Ukrainian language throughout the Ukraine and bringing about democratic reforms. The founders of the 'Shevchenko' Society, not unlike Hrushevski some twenty years later, tried to spread a uniform propaganda on both sides of the frontier, but the Russian Government frustrated their endeavour to influence the Ukrainian peasant by severe police restrictions on the *intelligentsia*, and by decrees suppressing Ukrainian books and language (1863 and 1876).

On the other hand the abolition of serfdom in 1861 made the Russian Government popular with the peasant. The Abolition Law gave to the peasants allotments of between three and eight acres, though a minimum of sixteen acres was necessary to support a family. From the beginning, therefore, the Ukrainian peasant felt a grievance against the large landowners rather than against the central government; and, as agricultural industries became centralized in the hands of capitalists, the economic problem grew yearly more acute. The unions of landowners, the *zemstvos*, had no Ukrainians among them, while the Ukrainian peasants, among whom the village community (*mir*) of the Great Russians was very little developed, were also behind

other provinces of the Empire in co-operative and self-organizing capacity. There was, then, little hope that economic betterment would be brought about by the evolution of peasant communities, as in Great Russia and Siberia. This situation was used by the Ukrainian Nationalists and the Austrian Government, which supported them. The expectation of economic advantages underlay the nationalistic movement; and the villages afforded much better ground for it than the towns, which were mostly Russian. In order to counteract the influence of the Ukrainian 'Prosvita', the Russian Government supported the 'Society of the Kachkovski' in Lvov (1875), which had a Russophil tendency.

In 1898, under the leadership of the Ukrainophils Hrushevski and Franko, the language reform campaign began. The Ukrainophils accepted the Podgorski dialect spoken in the Carpathian valleys as far east as the Dniester as the standard language, and proposed a phonetic orthography; while the Russophil Ukrainians took the northern branch of the Russian Ukrainian dialect, called Little Russian, as the standard language, and proposed an 'historical' orthography based on etymological spelling. The Ukrainophils were supported by the Austrian Government, which in 1874 introduced the Ukrainian language into the elementary schools of East Galicia, and subsequently recognized in 1895 the phonetic orthography of the Ukrainophils as the standard orthography of the Ukrainian language in Galicia and the Bukovina.

After 1890, however, the Austrian Government altered the Ukrainian policy inaugurated by it in 1848. Acting partly in his capacity as an anti-Russian Austrian Premier, and partly as a Pole, Count Badeni, helped by Professor Antonovicz of Kiev, brought about in 1889-90 an understanding between the Nationalist Ukrainian *intelligentsia* and *szlachta* and the Conservative Poles on the ground of a common anti-Russian feeling. As a result of this understanding, Professor Hrushevski, a pupil of Antonovicz, went in 1894 from Kiev to Lvov to fill the chair of Ukrainian

history. Another representative of the Ukrainian *szlachta*, Paulin Swiecicki, tried to rouse Polish sympathy with Ukrainian irredentism.

But these measures were the last conciliatory steps. In the last ten years of the nineteenth century the anti-Polish parties, the Radicals, led by Dragomanov (1895) in the Austrian Ukraine, grew in strength; and relations between the Poles and Ukrainians in the Russian, and still more in the Austrian, Ukraine became worse and worse. This was undoubtedly connected with the fact that after 1866 the Austrian Government subjected the Ukrainians to the Poles, while in the Russian Ukraine the Government favoured the large Polish landowners, who occupied high positions at Court. The Galician elections of 1897, when Badeni's Polish policy was victorious, finally made a gulf between Poles and Ukrainians in Galicia which affected relations between them in the Russian Ukraine as well. For the first time the Russophiles and Ukrainophiles united in opposition to the Poles.

In 1900 there was a further important change in Austrian policy in the Ukraine. The visit of the Emperor Francis Joseph to Berlin in that year was understood to have had the object of reconciling German and Austrian opinion in regard to the Ukraine. Shortly afterwards the Ukrainian Radical, M. Sembratovych, published an anti-Polish book, *Polonia Irredenta*, which was cordially welcomed by the German press.

Growth of Political Parties.—About the same time various Ukrainian political parties began to organize themselves. Of these the most important was that of the 'National Democrats', founded in 1899 by Professor Hrushevski in Galicia to fight for rights equal to those of the Poles in Galicia and for the autonomy of the Russian Ukraine as a federate Russian state. This party resembled the Polish National Democrats; and their half-gymnastic, half-military organizations, called *sokoly*, were similar to the Polish and Bohemian *sokoly*. In 1900 the first Revolutionary Ukrainian Party was organized in Lvov; in 1905 it assumed the name of the

‘Ukrainian Social Democratic Working-men’s Party’, and their gymnastic-military societies were called *sich*. Both these parties were in constant communication with the Russian Ukraine.

The Russian Revolution of 1905.—As a consequence of this revolution, the restriction upon the Ukrainian language in Russia, partly cancelled (with regard to theatres and public lectures) in 1881, was entirely withdrawn; and in 1910 the Russian Academy of Science published a report by seven academicians in which they supported the just demand of the Ukrainians to have their school text-books in their own language. This was taken by the Ukrainians to be a recognition of Ukrainian as a separate language. In 1906 the Ukrainian members of the first Duma joined the Autonomist-Federalist Group, but scarcely any separatist movement was noticeable. The second Duma had an Ukrainian club, which worked for the autonomy of the Ukraine; their organ was the *Ridna Sprava*. But in the third Duma, owing to manipulations of the franchise, the Ukraine was represented by very backward members, uneducated priests and peasants.

The Russian Ukraine turns to Austria and Germany.—Between 1907 and 1914 new anti-Ukrainian measures were passed by the Russian Government, much to the discontent of the Russian *intelligentsia*. After 1909 the Ukrainian Social Democratic party in the Russian Ukraine, which was connected with the Social Democrats in Galicia, grew stronger, and formulated a programme of autonomous government. The Ukrainian university students agitated in favour of Ukrainian chairs in Russian universities in Ukrainian territory; and Bishop Parthenius made an attempt to introduce the Ukrainian language as the medium of instruction in church schools. The attitude of the Poles towards this movement in the Russian Ukraine varied according to their connexion with one or the other of the two great political groups. The Conservative Polish landowners in the Ukraine, as for example Count Joseph Potocki, supported the Russian Govern-

ment by building on their estates schools for Ukrainian peasants in which the Russian tongue was employed; and the leader of the Polish National Democratic Party in the Duma used his influence with Conservative Polish opinion in Galicia to support the Russophil propaganda carried on there by the Russian Government. As a result of these efforts, in the Galician elections of 1907 ten Russophils were elected to the Reichsrat as opposed to eleven Ukrainophils. This was followed by the murder of the Polish Viceroy, Count A. Potocki, by a Ukrainophil Radical in 1908.

Meanwhile in Galicia the Russophil propaganda of the Russian Government was rousing much opposition; and the Russophil party itself split up into two sections. The Pro-Russian Party, supported by the Pan-Slavist Count Bobrinski, and led by the Ukrainian Dudykievich, edited the *Prikarpat'skaya Rus*; while the Moderate Russophil or Old Ruthenian Party, under the leadership of the Ukrainians Davydiak and Korol, published the *Halychanin*. The growing power of the Radicals also opposed the Russophils; and in the Galician elections of 1913 only one Russophil was elected. At the same time, German as well as Austrian influence began to assert itself among the Ukrainians of Galicia. This has been proved through the disclosure by a Polish journalist, Krysiak, of 97 documents exchanged from March 1903 onwards between the Prussian Anti-Polish Society (*Ostmarkenverein*) and the Ukrainian National Committee (*Ruthenisches National-Komitee*). The Prussian institution encouraged and materially supported the Ukrainian National Committee. Since both these institutions were nominally non-official, and the anti-Polish propaganda could not be treated as treason, because the State after all was Austrian, the Poles were unable to take direct measures against these intrigues; but in the trials of Russophil Ukrainians in Galicia for high treason the Polish Conservative jury acquitted the Russophils.

(c) *From the Outbreak of War to the Russian Revolution* (1914-17).—In the autumn of 1914 the Russian

army occupied Eastern Galicia. Russian public opinion, hitherto ignorant of the existence of 'Ruthenians' in Eastern Galicia, was then instructed, and now became very Pan-Slav. The attitude of the first Russian Governor, Count Sheremetyev, was the outcome of circumstances that preceded the war. The small Russophil party of Ukrainians in Galicia and the Poles were left fairly undisturbed, while the Ukrainian Nationalists were persecuted. But with the appointment of Count George Bobrinski, cousin of the Pan-Slavist Vladimir Bobrinski, as Governor, and the Pan-Orthodox bishop, Eulogius, as Bishop of Galicia, all the Ukrainians in Galicia as well as the Poles began to suffer religious and political persecution. Polish schools were closed and the 'Prosvita' was suspended. From August 1914 the Ukrainian leaders, W. Wassilko, E. and K. Lewicki, and L. Baczynski, carried on negotiations with the Austrian and German authorities, aiming at the partition of Galicia and the union of Eastern Galicia with Volhynia and other parts of the Russian West Ukraine. The russifying policy of the Russian Administration furthered this agitation.

In the spring of 1915 the Russian retirement began, and by the autumn Galicia was cleared of Russians. Under the pressure of the Ukrainophiles, Count Sturgkh assured K. Lewicki at a secret interview on September 7, 1915, that Eastern Galicia and such part of the Russian Ukraine as was or might be under Austrian occupation would be united in an autonomous Ukrainian state attached to Austria, with, at the outset, Austrian officials and language.¹ The Russian policy in Galicia was severely criticized by the Liberals and even by the Central party in the Duma on August 28, 1914, and September 10, 1915. N. Bobchev and T. Romanchuk, in the Russophil Ukrainian press, accused the League for the Liberation of the Ukraine (Ukraino-

¹ 'Documents Ruthéno-Ukrainiens', in *Extraits du Journal de M. Olesnyckyj* (pp. 7, 8), published by the Bureau polonais des publications politiques (Paris, May 1919).

phils) of being the result of German intrigue.¹ This again gave rise to a pamphlet, by L. Tschelski, issued in Sofia (1915) by the League for the Liberation of the Ukraine, entitled *Is the Ukrainian Movement a German Intrigue?* The Russian Government took severe measures against the members of the League for the Liberation of the Ukraine, who, including the chief leader, Hrushevski, were banished to Siberia, or were forbidden to enter Russia from abroad.

(D) FOURTH PERIOD: SINCE THE RUSSIAN REVOLUTION OF 1917

(a) *The Ukraine becomes independent.*—One of the first questions which faced the Provisional Government at the beginning of the Russian Revolution was the demand for an amnesty for the Ukrainian Nationalist offenders, who were allowed to return from Siberia and abroad. Next came the demand for Ukrainian autonomy and the appointment of a special Minister for Ukrainian Affairs, presented by a deputation sent from Kiev to Petrograd on April 6, 1917. Soon afterwards the first Ukrainian National Congress was convened at Kiev (April 19-22), at which some 800 members representative of the *intelligentsia* and the Social Revolutionaries were present. They elected a Central Rada, and declared for an autonomous Ukrainian republic under a Russian federal republic. Professor Hrushevski was elected President. The territory claimed for the Ukrainian state corresponded roughly to the western parts of the Governments of Lublin and Grodno, and the whole of the Governments of Kiev, Poltava, Kherson, Volhynia, Kharkov, Podolia, Yekaterinoslav, and Chernigov, and excluded the Austrian Ukraine. The Congresses of the Ukrainian Soldiers (May 5-7) and of the Ukrainian Peasants (May-June) supported the Rada at this time. But the Petrograd

¹ In answer to a pamphlet by Tschelski, *No Liberator, but an Oppressor of Nations: How Russia freed the Ukraine*. L.L.U., Sofia, 1914.

Government refused to recognize the decisions of the Rada, and thereby strengthened a group of separatists hitherto supported only by the second Ukrainian Soldiers' Congress (June 7). The Rada now issued (June 24) a *Universale*, proclaiming that henceforth the Ukrainian Rada would control Ukrainian affairs and work in federation with the All-Russian Parliament when this should be established; and on June 30 an executive body of the Rada, called the General Secretariat, was appointed.

This step caused anxiety to the Petrograd Government; and on July 12-14 two members of the Duma, Tereschenko and Tseretelli, and subsequently Kerenski, went to Kiev. While granting most of the Ukrainian demands, Kerenski opposed the demand for the formation of a Ukrainian army on the ground that it would mean the break-up of the Russian army. The favourable attitude adopted by Kerenski towards Ukrainian demands caused a split in the Provisional Government of Petrograd; and the Cadets left the Cabinet on July 16.

The reorganized Provisional Government decided to grant autonomy to the Ukraine, but on July 19 a social revolution broke out in Kiev, and the help of the Provisional Government was sought by the Rada for the restoration of order. But before the formal recognition of Ukrainian autonomy by the Provisional Government, which took place on August 17, other riots broke out in Kiev, this time among the Russian or russified town population, who protested against the 'ukrainization' of South Russia. The recognition of the Provisional Government meant that, until the summoning of the Constituent Assembly, the General Secretariat of the Ukraine was the recognized authority controlling finance, commerce, industry, agriculture, labour, and other domestic affairs. All measures had to be submitted to the Provisional Government. The Ukraine was to consist of the Governments of Kiev, Volhynia, Podolia, Poltava, and Chernigov; the other Governments mentioned above could be included if

their *zemstvos* so desired. But this measure of autonomy was not accepted. The Rada on August 24 declined to send representatives to the National Council at Moscow, expressed the wish for a separate Ukrainian Constituent Assembly, and asked the Provisional Government to define more clearly its own position.

Meanwhile Russian public opinion, even in revolutionary circles, strongly resented the Ukrainian movement. The resentment was expressed in the communication of the Russian War Office to the *Russkoye-Slovo* of September 2, 1917, in which it was alleged that the League for the Liberation of the Ukraine was conducting espionage in Russia on behalf of Germany, and a separatist Ukrainian propaganda among the Russian prisoners of war, that it was in the pay of the German Foreign Office, and that it was giving help to the German armies. To this communication a reply was given by MM. Melenevski and A. Skoropis-Yolturovski, members of the League for the Liberation of the Ukraine, on October 25, 1917, in Stockholm, in which it was stated that the Austrian and German Governments had no part in the foundation of the League, which had been created in Eastern Galicia with the help of the Ukrainian immigrants; that the League based its hopes on the victory of the Central Powers over Russia; that they expressed the wish that the Central Powers should occupy the Ukraine; that they hoped the Ukraine would be fully independent and essentially democratic; that they carried on a cultural war among the Ukrainian prisoners of war in Germany without the help of the Germans; that the German spy of Ukrainian nationality, Yermolenko, had no connexion with the League; and lastly, that the League accepted money from all friends of the Ukraine, including the German Government, and intended to raise a loan from the German Government.

Then came the fall of the Provisional Government. In the Kerenski-Kornilov affair of 1917 the General Secretariat as well as the Soldiers' and Workmen's Councils of the Ukraine sent their loyal assurances to

the Provisional Government. The idea of forming part of a Russian federal republic was still powerful in the Rada ; and on September 26, 1917, a conference of forty different nationalities had met at Kiev to discuss the question of local autonomies under a federal system. Preparations for a Constituent Assembly, which was to include 22 members from the Ukraine and 17 from the Don Cossacks, were set on foot ; while propaganda was carried on by the ultra-nationalists and the internationalists, i.e. the Soviets, with a view to boycotting the Russian Constituent Assembly.

In November 1917, after Kerenski's Government had been replaced by the Bolshevik Soviets, the Ukraine on the whole was much more in favour of the latter than were the Don Cossacks, who formed on November 9 a confederation of a more conservative character. To save its position among the masses, the Rada underwent a rapid process of evolution, and on November 20 published a *Universale* of a radical character. It proclaimed the 'Ukrainian People's Republic', abolished all private ownership of land, introduced State control of production and an eight-hour day in all factories, removed the death penalty from the statute book, and finally expressed a hope that the Ukrainian National Republic would be federated with the Russian Republic. By doing this the Rada hoped to check Soviet interference ; it failed to do so ; and from December 19 serious differences between the Rada and the Soviet Government in Petrograd became apparent. The Soviet Government at Petrograd accused the Rada of giving support to the Cadets and of siding with the Don Cossacks in their hostility to the Bolsheviks ; while the Rada declared itself a body elected by Revolutionary Democrats in the Ukraine, and refused to co-operate with the Bolsheviks or to send delegates with them to Brest-Litovsk. It finally declared, on December 24, that, as the Russian army was disorganized, it would take military measures for the defence of its borders. Some of the Ukrainian forces mobilized at that time joined

the Russian armies on the Rumanian and south-western fronts. The Soviet Government therefore began to organize the Red Guards against the Rada, which by that time had completed its negotiations with Germany, and on December 27 had sent the delegation of the Ukrainian Central Rada to Brest-Litovsk. The delegation was composed of Hrushevski, Holubowich, Vinnitchenko, and Petlura, while the intermediary between them and the Austro-German authorities was Wassilko, a member of the Reichsrat and Count Czernin's adviser on Ukrainian affairs.

On January 11, 1918, the delegates of the Ukrainian Republic were formally recognized at Brest by the Central Powers. This recognition was interpreted by the Rada as meaning the recognition of Ukrainian independence. Vinnitchenko boasted that the French Government had made a gold loan and printed paper money for the Ukraine, and that the Western allies would soon recognize its independence. (The Allied Mission to the Ukraine, sent in December 1917, was interpreted by the Ukrainians as implying such a recognition.) But, while successful at Brest, the Rada's authority in Kiev was shaken by the frequent risings of the Ukrainians of the Soviets (especially at Odessa on January 17 and 28); and the Petrograd Soviets supported the latter, demanding that they should be represented in the Ukrainian delegation. On January 26 the Government at Petrograd broke off relations with the Rada, 'until it is replaced by a Rada of Soviets'. To strengthen its position at Brest, the Rada, on January 28, declared, by 508 votes to 4, for the complete independence of the Ukraine.

(b) *German Occupation.*—On February 9 the 'Bread' peace of Brest-Litovsk was signed between Germany, Austria-Hungary, Bulgaria, and Turkey on the one hand, and the 'Ukrainian People's Republic' (the Rada) on the other. At the same time, however, the report arrived that the Rada had been suppressed by Soviet troops, who declared it to be 'but a sad memory'. On February 20 the British Chargé-d'affaires in Russia

denied that Great Britain had recognized the Ukraine as an independent state ; while Mr. Balfour gave the same assurance to a member of the Polish National Committee in London, that body having protested against the boundaries of the new state, and against the assigning of Cholm to the Ukraine.

Meanwhile the Russian Soviet army was supporting the Ukrainian Soviets ; it forced the Rada to take refuge (March 1) in Jitomir (Volhynia). The Rada now sought protection from the Central Powers. Dr. Seidler made a statement to this effect on March 2 in the Austrian Reichsrat, and soon afterwards the Germans occupied the north-eastern and the Austrians the southern Ukraine. On March 14 the *Vossische Zeitung* declared the Rada to be re-established at Kiev, and ready to ratify the Brest-Litovsk Treaty. But in fact, although the Rada wanted German support in their fight against the Soviets, they could not act against their own people and agree to all the German demands. From the end of March the Germans fought the Soviet troops in the Ukraine, while on the other hand they seized the food supplies of the non-Soviet Ukrainians. The food crisis reached its climax in the middle of April, when the Rada ceased to support the armies of occupation.

Consequently, on April 28, the Ukrainian Rada Government was overthrown by the armies of occupation ; and General Skoropadski, a Russian of Ukrainian descent, was placed at the head of affairs, with the title of Hetman. The Rada having refused to abdicate, the Germans on May 7 arrested its members, and attempted to secure the support of the great landowners in their efforts to obtain food. The German Field-Marshal von Eichhorn published a decree re-establishing private ownership of land on a large scale, disarmed the Ukrainian regiments, and organized an army obedient to himself. The opposition to the Germans and to the Hetman Skoropadski, who had dictatorial power and was supported by all who were in favour of the pre-revolutionary regime or were afraid of social

strife, inspired such desperate acts as burning stores of grain, and aroused Socialist protests in the Austrian Reichsrat. Meanwhile the Moscow Soviet Government came to an agreement with the Ukrainian Rada (May 23), and recognized the Ukraine as an independent state. On June 13-14 the Russo-Ukrainian armistice was formally signed.

On May 24 a peasant rising broke out all over the Ukraine owing to the drastic measures of the German military officials, who declared the country in a state of siege; the rising was directed against the Germans and the big landowners, who regarded the German army as militia to be used against social disturbances and anarchy. The objects of this rising were stated in the manifesto of the Peasants' Congress at Kiev on June 7. The congress demanded (1) that a Hetman chosen by landowners should be deposed; (2) that the Ukraine should be a 'People's Republic'; (3) that no land should be returned to proprietors; and (4) that a Legislative Assembly should be convoked. This assembly the peasants agreed to support, appealing to the Germans not to oppose the People's Republic. However, the German troops in occupation continued to suppress strife among the peasants and to collect food by severe means, the result being that Von Eichhorn was assassinated in Kiev on July 30.

The Ukraine now became the battleground of five propagandist forces—pro-German, pro-Ally, pro-Russian Federalist, Bolshevik, and Separatist-Nationalist. The Austrian authorities arranged for the evacuation of Lvov by the Polish troops, and the Ukrainians (Ruthenians) seized the city (October 31) and held it for about a month, during which they are said to have had the help of the Ukrainians from Volhynia as well as of the Austrian officers. The Ukrainian (Ruthenian) National Council stated that it had taken over the administration of Eastern Galicia. The Polish Galician Liquidation Commission, established after the retirement of the Austrian authorities, opposed the Ukrainian claims.

(c) *The Ukraine since the Armistice.*—The government of Skoropadski lasted for a short time after the signing of the armistice in Western Europe; and the conservative elements in the Ukraine, whether Ukrainians, Poles, or Russians, wished that the Western Allies should support Skoropadski and send a fresh army of occupation to replace the German army. Hoping for an Allied recognition, and under pressure from the peasants, Skoropadski introduced some democratic reforms, and dissolved the Germanophil cabinet of Lyssogub. The old Rada, however, reorganized itself into a Directory with Vinnitchenko and Petlura at its head, and replaced Skoropadski's government on December 14, 1918.

III. SOCIAL AND POLITICAL CONDITIONS

(A) RELIGIOUS

(a) *Christians*.—Prince Vladimir of Kiev (972–1015) accepted Christianity in its Byzantine form. The first Bishop of Kiev, Michael, a Syrian by birth, was sent by the Patriarch of Constantinople, on whom Kiev was dependent. After the final separation of the Eastern and Western Churches in 1054, the Church of Kiev kept up relations with the Pope for nearly a hundred years. Eventually, however, owing to the influence of Nicephorus, a Greek by birth, who was Metropolitan of Kiev, 1104–20, it followed Constantinople. After the Ukraine passed under Lithuanian and Polish rule, her church history became independent of that of the Great Russian Church. In 1354 the Patriarch of Constantinople appointed Alexis, a Russian by birth, as Metropolitan of Moscow; and in 1362, complying with the request of the Lithuanian prince (a pagan), he appointed another Metropolitan in Kiev for those Ukrainians who were subjects of Lithuania.

The idea of a Graeco-Roman national Church had been occasionally entertained in Western Ukraine; and in 1594 a Synod of Ukrainian Orthodox bishops, led by Rahosa the Metropolitan of Kiev, laid the foundation of the 'Uniat' Church, i. e. a Church of Byzantine ritual and Slavonic language, recognizing the jurisdiction of the Pope. The movement had a double character—national, for it originated with educated and patriotic clergy; and moral, for it aimed at improving the character of the clergy. The Synod of Brest in 1595–6 proclaimed the Union, which was supported by most of the Orthodox bishops, the bishops of Lvov and Przemysl being the last to join it. From the very beginning the Union had to face opposition on the one hand from the educated Ukrainian laymen.

led by Prince Constantine Ostrogski and the Cossacks, and on the other hand from the Polish Catholic bishops, who did not wish to recognize the Uniat bishops as their equals in rights. On the demand of the Orthodox part of the Ukraine, the Orthodox Patriarch of Jerusalem, Theophanus, ordained new bishops for the Ukraine to take the place of those who had joined the Uniat Church. At first these were not accepted by the Polish kings; but, under the pressure of Cossack demands, Ladislaus IV divided the bishoprics of the Ukraine between the Uniats and the Orthodox. The Orthodox bishops were installed in Przemyśl, Lvov, and Lutsk. In their opposition to the Uniat Church, the Cossacks united with the Russians.

At the Polish Partition of 1795, all the sees were Uniat except Lvov and Przemyśl, and there were about 12,000,000 professing Uniats. In spite of the fact that all treaties between Poland and Russia (1773, 1775, 1788, 1793, 1795) had expressly guaranteed the toleration of Catholics of both rites, the persecution of Uniats by Russia began almost at once. In 1827 the four Uniat bishoprics of Vilna, Brest, Polotsk, and Lutsk were made into two, the Lithuanian and White Russian. In 1833 forcible conversion was introduced; and in 1839 a sham petition was addressed to the Russian Government by a Uniat priest, Joseph Siemaszko, asking that the Uniat Church should be restored to communion with the State religion. Wholesale massacres and banishments to Siberia began; the last Uniat Bishop of ChoŹm, Kalinski, was exiled, and a Galician apostate, Popiel, was installed in his place. In 1875 the Union was officially suppressed.

The attitude of the Poles to the Union was changed after the Polish Partitions. The Catholic clergy and people in Russian Poland supported the Uniats in their refusal to attend the Orthodox Church; the Uniats were officially known as 'non-Christians', though unofficially their spiritual needs were attended to by the Uniat or Catholic clergy. The Uniat Church in Galicia supported their countrymen across the

frontier. After the proclamation of religious toleration in 1905, about 200,000 Ukrainians immediately declared themselves Uniats, so that the Russian Government soon found it necessary to restrict the scope of the proclamation. Though the Uniats in Russia were forbidden to join the Catholic Church, many of them became Catholics or sectaries. The last Russian persecution of the Uniat Church took place during the Russian occupation of Galicia in 1915, when the Russian bishop, Eulogius, started a regular campaign to replace Uniat priests by Orthodox clergy, and Uniat Ukrainian by Russian Orthodox schools. Many Uniat priests were banished to Siberia; and the Uniat Metropolitan, Szeptycki, was exiled to a Russian monastic prison. It is uncertain whether the Uniat Church has been gaining ground outside the provinces of Chołm and Polesia. As no statistics have been taken in Russia since the decree of religious toleration in 1905, it is difficult to give a correct estimate of the number of members of the Russian Orthodox Church, but their percentage varies from 75 to 93 in the various Governments of the Russian Ukraine. The Great-Russian sect of the *Raskolniki* (Old Believers) found refuge in the Governments of Kharkov (0.1 per cent. of the population) and Chernigov (0.9 per cent.).

The number of Roman Catholics, chiefly Poles, is higher in the west (in Volhynia the Poles in 1897 formed 6.16 per cent. of the population), but they are only slightly more numerous than the Lutheran Protestants (in Volhynia 5.73 of the population), who are German colonists.

Of great social importance are the peasant sects, of which the chief in the Ukraine is the *Shtunda* (from *Stunde*, since they gather at a definite hour). The doctrines of this Lutheran sect, which originated in Württemberg in 1705, were brought to South Russia by the Württemberg merchants, as the Danzig merchants, who came here after the partitions of Poland, brought with them the teaching of the Mennonite sect. Since 1870 it has been oppressed officially by the Russian

Government. The centres of the Shtundists are in the Kherson Government (the districts of Yelisavetgrad and Odessa), in the Kiev Government (the districts of Tarashchansk, Skirsk, and Zvenigorodsk), in the Yekaterinoslav, Kharkov, and Poltava Governments, and to a less extent in Chernigov, Podolia, and Bessarabia. In their boycott of official churches, ikons, and priests, of military service, and to a great extent of the Government itself, the Shtundists are akin to other sectaries. One branch of Ukrainian sectaries combines the teaching of the Shtundists and that of the Baptists, and are called Neo-Baptists. The sectaries in the Ukraine, as elsewhere, were suppressed by the Russian Government, but those who have studied the question (e.g. Prugavin¹) state that they number more than 20,000,000.

Position of the Clergy.—On the whole it is true that the Uniat clergy in Eastern Galicia, Chołm, Polesia, and wherever the Uniat Church is found, as well as the leaders of the sects in the other parts of the Ukraine, exercise enormous influence over religious and social life. The persecutions they have undergone have strengthened their prestige among the peasants and even among the *intelligentsia*. The influence of the Russian Orthodox clergy, though many of them have been of Ukrainian nationality, has been limited to the religious sphere, since socially they have been generally regarded as Government officials by the peasants and still more by the *intelligentsia*.

The clergy in the Ukraine are on the whole less educated than in Great Russia, i. e. they are mostly 'seminarists', not 'academicians'. The Kiev-Pecherskaya Lavra, once known for its learning, has degenerated into a monastery in which some of the monks are illiterate. For the last twenty-five years the highest positions all over the Empire have been in the hands of the monastic clergy; and there was acute hostility between them and the secular clergy, who in

¹ See V. Anderson, *Old Believers and Sectaries*, Petrograd, 1908 (Russ.); also T. I. Buthevich, *Survey of Russian Sects and their Creeds*, Kharkov, 1910 (Russ.).

the Ukraine were mostly of the 'seminarist' type and often of Ukrainian nationality, and hence of peasant descent. In the Ukraine the secular clergy were, if anything, more popular than the monastic.

(b) *Jews*.—Next in number to the Orthodox are the Jews. Records make it clear that since the seventeenth century the Ukraine has been the centre of the Jewish 'pogrom' movement, and is more anti-Semitic than any other East-European country. A Hebrew-Jewish scholar, Nathan of Zaslavl, has left a document¹ containing the record of terrible atrocities perpetrated by the Ukrainians and Cossacks on the Jews during the Cossacks' War against Poland. The 'pogroms' of the nineteenth and twentieth centuries may appear less cruel; but, though they were organized by the Russian secret police, it has been proved in the law-courts that the local population was quite ready to fall in with the suggestions of these agents.² The reasons for this hatred are partly economic—for the Jews are very successful middlemen between the Ukraine and other countries, and hence in possession of capital, which they lend at a high rate to the peasant—but are also racial, since the hatred between these two races is stronger than that between either Poles or Great Russians and the Jews: All the traditions of the steppe-country peasant are opposed to those of the Jewish townsman. This is shown by the facts that there is hardly any mixed Jewish-Ukrainian population, and that the Jews live chiefly in the towns and industrial settlements where Russians and Poles predominate. The Jews came to the Ukraine on the first wave of colonization from Poland in the fourteenth and fifteenth centuries.

According to data obtained in 1897, the percentage of the Jewish population in the Governments of the Ukraine was as follows: Volhynia, 13·2 per cent.; Podolia, 12·24 per cent.; Kiev, 12·09 per cent.; Kherson, 12 per cent.; Chernigov, 5 per cent.;

¹ *Jawein Mesula: a Chronicle of Events from 1648 to 1652*. First printed in Vienna, 1656.

² I. Luchitski, *Legal Speeches concerning the Jewish Pogroms*, Kiev, 1908 (in Russian).

Yekaterinoslav, 5 per cent.; Poltava, 4 per cent.; Taurida, 4 per cent.; Kharkov, 0·5 per cent. only.

Like the Orthodox Church, the Jewish community has its sects. There are two such sects in the Ukraine; and their members exercise a great moral influence, and form a bridge between the Turkish and Jewish populations of the Ukraine. They are called Karaimy and Krymchaki, and live chiefly in the towns of the Taurida and Kherson Governments. They number about 12,000. These people, using mostly Tatar dialects, are supposed to be descendants of Jewish pre-Christian colonies in the Crimea and the Turkic Khazars of the Middle Ages, who were of Jewish faith. The Karaimy disapprove of the Talmud, and base all their beliefs on the Law of Moses. They differ from other Jewish communities in their cleanliness, their absolute honesty in business, and their great sense of social duties. Hence their wealth is evenly distributed in their communities.

(c) *Mohammedans*.—The largest Mohammedan colony is found in the Taurida government (187,940, or 13 per cent.), but their schools are less efficient and their culture is much lower than that of the Mohammedans of the Volga or of Turkestan.

(B) EDUCATIONAL

The last census, taken in 1897,¹ gives the following figures :

| Name of Government. | Total population in 1,000's. | No. of literates in 1,000's. | Per cent. of literates. |
|---------------------|------------------------------|------------------------------|-------------------------|
| Podolia . . . | 3,018 | 450 | 14·5 |
| Kharkov . . . | 2,492 | 384 | 15·4 |
| Poltava . . . | 2,778 | 446 | 16·1 |
| Volhynia . . . | 2,989 | 493 | 16·5 |
| Kiev | 3,559 | 598 | 16·8 |
| Chernigov . . . | 2,298 | 402 | 17·5 |
| Yekaterinoslav . . | 2,114 | 433 | 20·5 |
| Kherson | 2,734 | 657 | 24·1 |
| Taurida | 1,448 | 380 | 26·2 |
| | 23,430 | 4,243 | average 18·2 |

¹ From *The Ukrainian Movement as a Stage in South Russian Separatism*, Shchegolev (Kiev, 1912), p. 364.

The high percentage of literates in Novorossiia (Kherson, Taurida, and Yekaterinoslav) is due to the presence of German colonists. In ten Great-Russian Governments (Pskov, Penza, Simbirsk, Tambov, Smolensk, Orel, Kaluga, Riazan, Tula, and Nijni Novgorod) there are 16,302,000 inhabitants, of whom 16.9 per cent. can read and write. Since the census of 1897, education in the Ukraine has been rapidly spreading, thanks chiefly to the *zemstvos*, who supported about half the existing schools. In the Government of Poltava the *zemstvos* spent in 1900 as much as 20 per cent. of their income on education. According to the statistics of Yasnopolski, who bases his calculations on the reports of the Central Statistical Committee in Petrograd, and brings his figures down to 1910, the percentage of literates is as follows: Taurida, 38 per cent.; Kherson, 35; Yekaterinoslav, 29; Chernigov, 25; Kiev, 24; Kharkov, 23; Poltava, 23; Volhynia, 23; Podolia, 20.

Within the territories of the nine Governments which form the Ukraine, there are three universities and several higher educational institutions in Odessa, in Kiev, and in Kharkov. The language and administration are Russian, though Kiev has Chairs of Ukrainian Language and History, recently instituted; and they all gather, especially at Kiev, a fair number of Ukrainian scholars. The three university towns form centres round which other schools are grouped. Kiev is the centre for the South-west Territory, i. e. the Governments of Kiev, Podolia, and Volhynia; Odessa is the centre for Novorossiia, i. e. the Governments of Kherson, Taurida, and Yekaterinoslav; and Kharkov is the centre for Malorossiia, i. e. the Governments of Chernigov, Poltava, and Kharkov. On the whole, education is most advanced in Novorossiia, and Odessa has the greatest number of schools (420), secondary and primary. The Government of Kharkov is very poor in schools, though Kharkov itself possesses about 111; next come the Governments of Podolia, Poltava, and Volhynia.

In the primary schools only Russian was taught until recently, but in those kept by the *zemstvos* and Ukrainian societies Ukrainian is now also taught. In the secondary schools, which exist only in the larger towns, French and German instruction is given. In the German colonies there are German local schools (private), mostly primary. In the large towns of the western Ukraine and in the Polish colonies and on the large estates there are Polish private schools, which have been officially recognized since 1905. It is impossible to estimate the number of Ukrainians who went to universities, because many of them went to Russian universities outside the Ukraine or to foreign universities; but they can only have been a small percentage of the total number of literates.

The majority of the newspapers in the Ukraine were Russian. Each Government and each district had its own *Viedomosti*; and there were many Russian papers in Kiev. There were fewer Polish papers, chiefly in Kiev and the western Ukraine. The Germans had local papers in their colonies. The Ukrainians had, up to 1917, some eighteen newspapers, but some of them were printed abroad. In Kiev there were twelve Ukrainian papers, the most popular of which, *Rada*, was started in 1906; in Mohilev one, in Kharkov one, in Yekaterinoslav one, in Moscow one. One of the earliest Ukrainian papers printed abroad was the *Ruthenische Revue*, subsequently called *Ukrainische Rundschau*, started in 1903 in Vienna. This list does not include the Ukrainian newspapers printed in Eastern Galicia in a slightly different language and character.

(C) POLITICAL

Political conditions in the Ukraine were very much like those in other parts of the Russian Empire, except for special restrictions aiming at russification, e. g. the refusal to appoint the inhabitants of non-Russian districts to important Government positions. But the russification was not so thorough as in Finland

or Poland, because before 1905 opposition to the Russian Government was less marked. Besides, many Russian Liberals, even of official position, treated the Ukrainian movement as an interesting variation of Russian life.

(D) SOCIAL

The class divisions into titled aristocracy, nobles, townsmen, merchants, and peasants, existed as in other parts of the Russian Empire, but, roughly speaking, a different ethnic element corresponded to each social division. The titled aristocracy was mainly Polish in the western parts (with the name Polish Ukrainians) and Russian in the eastern. With but few exceptions, the same could be said of the class of landed nobles, in which the Great Russians formed the majority; Poles, Germans and others were the minority. The Ukrainian landed noble was almost unknown; and the townsmen of the large towns were also in a great majority non-Ukrainian, being chiefly Great Russians and Jews (in Berdichev the Jews form 78·4 per cent. of the population; in Yekaterinoslav, 40 per cent.), and, in the western Ukraine, Russian, Polish, German, Greek, &c. The Jews were mainly traders and shopkeepers, while the Great Russians and the foreigners were manufacturers.

But few of the Ukrainian *intelligentsia* took part in the industrial life of the country, about one-third of them belonging to the professional classes, i. e. doctors, Government officials, lawyers, and teachers. The Ukrainian professional classes originated from the ex-Cossacks and the townsmen rather than from the peasants, since there is a great distinction between the peasants and other members of the community. The Ukrainian nobles, it must be remembered, have in most cases become russified, and partly also polonized. The distinction between the peasant and other classes is not based on economic grounds, for some peasants in the Ukraine are very rich. It lies chiefly in their cultural condition, in their education, or rather lack

of education, and in their occupations. The bulk (86.4 per cent.) of the Ukrainians are peasants and agriculturists. The percentage of people living in the country is in the Government of Kharkov, 85; in Poltava, 89; Yekaterinoslav, 88; Chernigov, 91; Taurida, 80; Kherson, 70. The percentage of peasants is almost the same, e. g. Kharkov, 90; Poltava, 89; Yekaterinoslav, 87; Chernigov, 86; Taurida, 73; Kherson, 61. The average increase in population is higher than in any other province in European Russia; consequently, though many peasants have become, during the last twenty-five years, workmen in the newly started industries, the general number of agricultural peasants remains unchanged.

*Land Tenure*¹.—While Great Russia is at present a country of communal land-ownership (*mir*), in the Ukraine or Little Russia individual or, strictly speaking, family ownership and communal ownership exist together (cf. p. 78). The *mir* in Great Russia appears to have been introduced in the sixteenth century, when the Moscow Government established serfdom and imposed heavy taxation, for it was easier to make the whole village responsible for the taxes than the separate families. However, in the north or, properly speaking, Novgorod Russ, the land, as a general rule, belonged to one large family or clan, composed of from two to six houses (the owners of which bore the same name), and called *pyechishche* (large stove). The ownership was hereditary, and hence the land became more and more subdivided, so that families owned more or less according to the number of children. There was no readjustment of the land as in the case of the *mir*. The *pyechishche* of Novgorod was known in Kiev-Russ as *ognishche* (meaning a large fire); and the term *ognishchanin* (meaning a member of the *ognishche*) is found in the Kiev law (*Russkaya Pravda*). Connected with that form of tenure is a custom, which even now is found sometimes in the Ukraine, of minorate, according to which the younger

¹ See also p. 77.

son inherits his father's house, since the elder son has started a new house and received his share during his father's life. If a member of the *ognishche* had not enough land, he migrated.

This old custom of family ownership was the basis of the Cossack communities, which differed from the *mir* in that, as the Cossacks gave little attention to cultivation and paid no taxes, the re-allotment of their lands was not necessary, though in theory every Cossack had the same right to the land. However, towards the end of the seventeenth century, the 'elders' of the Cossacks began to appropriate more land than the commoners. After Russia had subdued the Ukraine, the commoners were turned into peasants (in 1763 and 1783), and the 'elders' were given titles of nobility in 1785. After the final introduction of serfdom into the Ukraine, the taxes were equally imposed, and therefore communal ownership on the Moscow lines was introduced, though it never had such success as in Great Russia. Remnants of *ognishches* still exist in the Governments of Chernigov and Poltava, whither it was brought by the Ukrainian colonists, though individual ownership is now predominant. In some cases, though each house owns some land privately, there are other lands, meadows, and fishing rights which belong to all the village community, and are re-allotted from time to time.

In the Ukraine, as it was immediately before the war, all the land was divided into individual and communal property. The individual property consisted of (1) State lands, (2) Imperial family appanages, (3) Church and monastery lands, (4) town lands, (5) nobles' lands, and (6) lands belonging to others than nobles. The communal property was held by the peasant and village communities. Individual ownership prevails in the Governments of Yekaterinoslav (50·4 per cent. in 1905), Kherson (51·5 per cent.), Taurida (52·6 per cent.). Then come the Governments of the south-west, Volhynia (48·9 per cent.), Kiev (45·2 per cent.), Podolia (44·4 per cent.). The eastern

Governments have the smallest percentage of private ownership. Thus, in Kharkov, which contains the greatest number of Great Russians, only 35·8 per cent. of land is privately owned, and in Chernigov 41·7 per cent. The Poltava Government forms an exception ; and, as it is a Government in which the Ukrainian population forms between 93 and 95 per cent., it is worth noticing that individual property still forms 45·1 per cent., even though the Stolypin reforms tended to give every facility for the introduction of communal ownership. But, though the Taurida, Kherson, and Yekaterinoslav Governments have the highest percentage of land individually owned, it is owned mostly by the nobles, especially in Yekaterinoslav (67·2 per cent.) and Kherson (63 per cent.), and less by the peasants (Yekaterinoslav, 23·7 per cent., and Kherson, 13·8 per cent.).

Taking into account both the individual and the communal land of the peasants, we find that only in the Governments of Kharkov (59 per cent.), Chernigov (53 per cent.), and Poltava (52 per cent.) do the peasants own above half of the arable land. In Volhynia, Podolia, and Kiev, they own between 40 and 48 per cent. ; in Yekaterinoslav, 45 per cent. ; while in Taurida and Kherson, where only about half the population is Ukrainian and town life is well developed, the percentage is 37.

The amount of land assigned to each family by the Emancipation Law of 1861 was between three and eight acres, though sixteen acres are necessary to support a family. Since then the population has increased by 43 per cent., but the land available for peasant owners has only increased by 20 per cent. (in 1910). This fact has compelled the peasants to rent land, and lies at the bottom of all economic unrest. In the Government of Poltava, where the situation is most acute, some 60 per cent. of the peasants own only from one to three *desyatines*¹ of land, and as few as 4 per cent. have more than five *desyatines*. In the Governments

¹ One *desyatine* = 2·7 acres.

of Volhynia and Podolia conditions are better, and the peasants have larger holdings, though only 16 per cent. own above five *desyatines*; in Kharkov, 33 per cent. own above five *desyatines*. In no place do the Ukrainian peasants equal in land-ownership the German and Czech colonists. The average holding among the German colonists is from 10 to 12 *desyatines*, and they specialize in cattle-breeding. The Czechs are concentrated in south-western Volhynia (in the districts of Dubno, Rovno, and Lutsk); and their average holding is 13 *desyatines*. The peasants' holdings are in a striking contrast to the big estates. In the Kiev Government there are some 43 estates of above 5,000 *desyatines* each, mostly owned by the nobles (some of them descendants of the old independent dukes, *knaz*) of Russian, Polish, or German nationality.

About 10 per cent. of the inhabitants of the Governments of Yekaterinoslav, Kherson, Taurida, Kiev, and Chernigov are occupied in industries other than agricultural. Trade occupies between 6 and 7 per cent. of the population in the Governments of Kherson, Kiev, Podolia, and Taurida.

GENERAL OBSERVATIONS

Ukrainian Nationalism.—The feeling of nationality, as it exists to-day, dates from Chmielnicki's rising in 1648. The old history of Kiev-Russ is common to Great Russians, White Russians, and the Ukrainians (Little Russians), and has been continued after the Tatar invasions chiefly in Great Russia, while the Ukraine ever since has been subject to one of her neighbours. Since Chmielnicki's time, the Ukrainian nationality has made progress only in one direction, i.e. in producing a small but energetic *intelligentsia*, which does not consider itself Russian or Polish in addition to being Ukrainian, though it is obliged to seek its higher education in Russia, Poland, and other foreign countries. The national feeling of this class is

different from that of the bulk of the peasants, whose local differences in dialects and customs are sufficiently great to obscure the idea of national unity understood by the *intelligentsia*. Not only has the Dnieper peasant no conception of a Ruthenian in Eastern Galicia, but he knows very little more about the Don or Kuban Ukrainian. But all these peasants, now as in the time of Chmielnicki, are conscious of their social and economic disabilities, and also of the fact that all the business and management of the country is in the hands of rich and educated foreigners.

Hence, the so-called feeling of nationality of the Ukrainian peasant is based on social unrest; and nationalist enthusiasm was aroused on that ground by the Rada and the Soviets of 1917, as it had been by Chmielnicki 250 years before. As soon as Chmielnicki's rising became political rather than social in aim, it failed, and even its foreign supporters did not save it. The same can be said about the nationalist movement of the Rada Directory of the Ukrainian *intelligentsia*. It went down before the Soviets because it was too political, while the Soviets are more intent upon social conditions.

The military strength of the Ukrainian nationalists is less now than it was in the time of Chmielnicki, since the strong military class of original Cossacks on which Chmielnicki relied either disappeared through successful Russian repressions or else amalgamated with the present Cossack community of the Don and the Kuban, which is only partly Ukrainian and has different political and social predilections. On the other hand, the rivalry between Russia, Austria, and the Poles, and the respective propaganda of the three rivals, have created among the *intelligentsia* of the Ukraine a feeling of self-confidence and a political programme that surpass Chmielnicki's and Mazeppa's dreams. In the struggle between Nationalist and Socialist interests, the bulk of the population has in the last three years given precedence to the latter; and it is still uncertain whether the peasants will care to support the

ideals of the *intelligentsia*, if the latter cannot provide them with the economic advantages to which they aspire.

The *Ukrainian territory* claimed by the propagandist literature, i. e. from San to Don, never formed a political unit, either independently or under the sway of any empire. It is a well-defined geographical unit with most favourable economic conditions, but the people living in these lands do not form a homogeneous nation of one linguistic, social, and cultural type. The essentially Ukrainian country lies on both sides of the Dnieper. In the Don and Kuban regions, the Ukrainian colonists were preceded by the Great-Russian colonists, in Eastern Galicia by the Poles. But it is true that during the time of the greatest Russian oppression Eastern Galicia played the part of Piedmont for the *intelligentsia* from the Russian Ukraine. The nine Governments grouped by the Russian Administration into (1) South-west Territory (Podolia, Volhynia, and Kiev), (2) Malorossiya (Chernigov, Poltava, and Kharkov), and (3) Novorossiya (only Kherson, Taurida, and Yekaterinoslav out of the five Governments of Novorossiya), have a population which is preponderantly Ukrainian in the rural districts; in the towns the Ukrainians are outnumbered by Jews, Russians, Poles, Greeks, Germans, Italians, &c.

It is remarkable how small a part is played by the *intelligentsia* in industry and trade, in the Church, and in legal and educational institutions. All Ukrainians are agriculturists, but in most cases they are merely labourers, not concerned with the management of agricultural industries. Since 1905, however, the co-operative societies have brought to the Ukrainian peasant the social education which the *mir* gave to the Great-Russian peasant in the two last centuries. The claim, therefore, that these nine Governments are Ukrainian means that people speaking various Ukrainian dialects and having similar customs inhabit them, though, so far, they have not managed it politically, socially, or culturally, and are hardly likely to do

so efficiently without the help of educated foreigners for some generations to come.

The Ukraine and Great Russia.—The future of the Ukraine affects Great Russia in the first instance. If the Ukraine is permanently severed from Great Russia, the latter will have to limit itself to the 'Moscow-Siberian' Empire, for it is hardly likely that any other native states formed within the limits of the former Russian Empire (Azerbaijan, Esthonia, Georgia, Latvia, Lithuania, the North Caucasian Republic, White Russia) would then belong to her. There seems to be a similarity between these states and the Ukraine, in that they all refuse to recognize Russian suzerainty, though they may possibly join Russia as states with equal rights. The Ukraine is the largest and richest of these states, so that she might play a determining part in their negotiation with Great Russia if she produces the necessary statesman. On the other hand, small as these other states are, they are more homogeneous ethnically and more advanced culturally than the Ukraine, and are able, with the exception of White Russia, to carry on political and economic affairs by themselves.

The Ukraine and Poland.—Poland and the Ukraine are neighbours who supplement each other in the economic sphere; and Poland has many men of education and enterprise. But good relations depend largely on the issue of the political conflict within the Ukraine. The Ukrainian nationalists claim Galicia as far as the River San, while the Poles, especially the Galician Poles, claim it all for Poland. The ethnic boundary is roughly along the River Bug. In the Eastern Galician problem lies the most serious danger of quarrel.

The next interest of Poland is in her minorities in Volhynia, Podolia, and Kiev. They consist of noble landowners or professionals in the towns, some of them men whose families have lived there for the last four or five centuries. The reverse is the case of the Ukrainians in Eastern Galicia. The Polish minorities in the Russian Ukraine are much smaller, but in

education and social standard they have a more important position. The satisfaction of the claims of the Polish 'historic minority' will depend on the form of the future Government in the Ukraine, and is bound up with similar claims on the part of the Great-Russians and other nationalities.

The Ukraine and Rumania.—The Ruthenians of the Bukovina and of Northern Hungary are more closely related to the Eastern Galicians than to the Russian Ukrainians. Though their number does not reach much more than a quarter of a million, the Ukrainian propagandists have, from 1914 onwards, claimed the Bukovina and also parts of Northern Hungary. Their claims conflict here with those of the Rumanians. The desire of Rumania and Poland to have a common frontier is thus opposed both by Galician Ukrainians and by Russian Ukrainian nationalists.

The Ukraine and the Jews.—Though hating the Jews, the Ukrainian nationalists need them economically as people of superior financial capacity and economic education. As there is no class of Ukrainians which could rival the Jews in these respects (though other countries with large Jewish minorities, e. g. Poland and Rumania, have evolved such a class in the last fifty years), the Ukrainians have so far given in to the the Jewish demands¹ for racial autonomy.

¹ After the Congress of the Representatives of the peoples of former Russia (September 27–30, 1917, at Kiev), the Rada issued on January 9, 1918, a 'Law concerning National Personal Autonomy', in virtue of which Great-Russians and Poles and Jews have been offered such autonomies. Skoropadski suppressed it, but the Directory revived it in December 1918.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

IN general the internal means of communication in the Ukraine are in a defective and backward state. They all require heavy expenditure and extensive works to bring them up to a standard approaching that of Western Europe.

(a) *Roads*

The Ministry of the Interior groups the roads under three heads: (1) metalled roads, (2) roads paved throughout their length, and (3) non-paved or soil roads. The metalled roads are constructed and kept up by the State. There are 2,254 miles of first-class road in the Ukraine, of which 923 miles are in the Government of Yekaterinoslav.

The principal lines of first-class roads are as follows:

From Kiev *via* Jitomir, Rovno, and Lutsk to Kovel, 260 miles. This road continues to Brest-Litovsk. There are branch roads from Rovno and Lutsk to Dubno, each about 30 miles in length, and from Dubno a road leads to Krzemenietz, some 20 miles distant.

From Kamenets Podolsk in a northerly direction to Proskurov and Staro-Konstantinov.

From Kiev in a northerly direction to Chernigov, thence to Mohilev and Vitebsk. The length from Kiev to the boundary of the Government of Chernigov is 150 miles.

From Kharkov northwards towards Kursk and Moscow. Thirty miles of this road are in the Government of Kharkov.

The remaining lengths of metalled road are mostly

in the Government of Yekaterinoslav in the Donets coal and iron region.

The second-class roads, described as 'paved throughout', have a mileage of 953. They are under the care of the *zemstvos*, but the expenditure bestowed upon them is small.

The third class of roads, described as 'soil' roads, has by far the greatest mileage, their length being 54,148 miles. In no country of western Europe would they be classed as roads, being merely tracks from point to point, worn by the traffic of the district. They are under the care of the *mirs*, or communes, whose budgets admit of the expenditure of very small sums on their upkeep.

As other means of communication are also few and unsatisfactory, the lack of good roads would be a fatal drawback to any development of the country, were it not for the fact that during three or four months of the year traffic by sledge is almost everywhere possible without special regard to the existence of a road or even a track. As during this period agricultural operations are suspended, an opportunity is afforded of transporting a vast quantity of goods.

(b) *Rivers and Canals*

The rivers of the Ukraine include the middle and lower courses of two large rivers, the Dnieper and the Dniester. Both are navigable for long distances, and should be of great importance as means of communication. Each, however, suffers from a serious natural defect which much curtails its usefulness, and to remedy which no adequate measures have been taken.

For purposes of navigation the river *Dnieper* falls into two sections known as 'above the rapids' and 'below the rapids'. Between Yekaterinoslav and Alexandrovsk are ten rapids, which are very dangerous and completely prevent navigation. Timber rafts are floated down, but the occupation of steering them is considered most hazardous and is entrusted to local pilots specially trained. Some attempt at improving

the channel was made early in the nineteenth century, but proved abortive. Proposals to canalize this section have so far had no result. From Loev to Yekaterinoslav, above the rapids, there is passenger traffic, some goods traffic, and a vast traffic in rafted timber. Though some of the timber is floated down the rapids to Kherson, most is brought ashore at Yekaterinoslav, which receives annually some 160,000 tons of building timber, besides other classes of wood. Below the rapids the river is navigable from Alexandrovsk to the mouth.

Some of the tributaries of the Dnieper are navigable for some distance from their junction with the main stream—the Pripet (Pripyat) for a short stretch; the Desna, which joins the Dnieper at Kiev, as far as the boundary of the Ukraine near Novgorod Sjeversk; the Psiol to a point west of Poltava; the Ingulets for about 25 miles.

The vessels employed in the Dnieper basin are of small tonnage (maximum about 300 tons), and the steamers are almost all either for passenger traffic or for towing the barges in which goods traffic is mainly carried. The maximum loaded depth below the rapids is 12 ft. 10 in.; above the rapids it is considerably less.

The *Dniester* is navigable for the whole of its length in the Ukraine from the Galician frontier to the mouth at Akkerman. There are many dangerous rapids, and the vessels used on the river are small, with a maximum draught of 3 ft. 9 in. The lagoon at the river mouth is so shallow that most vessels discharge at Varnitsa near Bender for carriage by rail to Odessa.

The *Southern Bug* is navigable from Vosnesensk to the mouth at Nikolaev. There is passenger traffic, and the size and draught of vessels is the same as on the Dnieper, below the rapids.

There is some navigation on the river *Styr* in Volhynia from Lutsk to Borobaza, also on the *Western Bug* from the Galician frontier to the point where it leaves the Ukraine, but in both cases only for rafts and vessels of very light draught.

The navigable length of the principal rivers is as follows :

| | <i>For Shipping.</i> <i>Miles.</i> | <i>For Rafting only.</i> <i>Miles.</i> |
|----------------|---------------------------------------|---|
| Dnieper . . . | 1,250 | 136 |
| Desna . . . | 537 | 166 |
| Dniester . . . | 521 | 35 |

All the above-mentioned waterways suffer in common from four serious defects. (1) They are frozen for a considerable period of the year. In the basin of the Dnieper traffic was only possible in the first ten years of this century for an average of 230 days above the rapids and 250 below. Other rivers are in a similar case. (2) The volume of water falls rapidly in summer, and in dry seasons lack of water impedes navigation seriously. (3) Wholesale cutting down of the forests on the banks has led to alteration of the beds of the rivers and the splitting up of the channels. (4) Works for the improvement of navigation scarcely exist, not even the most urgent having been undertaken.

The principal cargoes carried are breadstuffs, wood, and coal. Cereals are embarked in great quantities on the lower Dnieper and Southern Bug for shipment abroad from Kherson and Nikolaev. The upper Dnieper and the Dniester carry timber.

Navigable canals do not exist in the Ukraine. Should the scheme for a Dvina - Dnieper canal materialize, it would have a noticeable commercial effect upon the towns of Kiev, Yekaterinoslav, Alexandrovsk, and Kherson.

(c) *Railways*

Railway System.—There are in the Ukraine three great railway centres, viz. Kiev, Kharkov, and Yekaterinoslav.

1. From Kiev a line runs in a westerly direction to Sarny and Kovel, continuing thence to Cholm and Warsaw.

A second line goes in a north-easterly direction to Bakhmach, thence *via* Kursk and Orel to Moscow.

From Bakhmach an alternative line runs *via* Bryansk to Moscow.

In a south-south-east direction a third line goes to Yelisavetgrad, Nikolaev, and Kherson.

A fourth line runs eastward to Poltava and Kharkov.

Lastly, a line in a south-west direction goes to Vinnitsa, whence a line runs westward to Proskurov and Kamenets Podolsk (with two short branches to the Galician frontier), and another line runs southward to Odessa.

2. From Kharkov a line runs northward to Byelgorod, Kursk, Orel, and Moscow.

Another goes in a south-east direction to the Donets coal and iron region, Novocherkassk, Rostov-on-Don, and the Azov ports.

A third line goes east and north-east *via* Kupyansk to Voronezh and Tambov.

A fourth goes southward to Pavlograd and Yekaterinoslav.

3. From Yekaterinoslav a line runs in a north-west direction to Alexandria, Byelaya Tserkov, Fastov, and Kiev.

A line to the Donets coal and iron region goes eastward, with branches to the Azov ports, Berdyansk, Mariupol, and Taganrog.

Another line runs south to Alexandrovsk, Melitopol, and the Crimea.

None of the three great railway centres, however, is touched by a long new line which runs from Bakhmach in the Government of Chernigov, *via* Piryatin, Cherkassi, and Vosnesensk, to Odessa, thus giving to a badly-served district an outlet for its share of the cereal export trade.

A network of short lines serves the Donets coal region and the Krivoy-Rog iron region, with connexions to Yekaterinoslav and the ports.

Finance; Relations to Government.—Five separate concerns are interested in the Ukraine railways—the South-Western Railway, the Southern Railway, the Yekaterininsky Railway, the Moscow-Kiev-Voronezh

Railway, and the South-Eastern Railway. The first three belong to the State, and almost the whole of their mileage is in the Ukraine; the other two are privately owned, and some portion of their mileage is outside the Ukraine boundaries.

It is not possible to procure figures for the working of that proportion which is inside the limits of the Ukraine, and the figures for 1912, given below, are for the entire systems :

| | <i>Length of line. Miles.</i> | <i>Gross receipts. Million roubles.</i> | <i>Nett receipts. Million roubles.</i> | <i>Weight carried. Million tons.</i> |
|-----------------------------------|---------------------------------------|---|--|--|
| South-Western Rail- way | 2,604 | 73 | 30.4 | 15 |
| Southern Railway | 2,042 | 66 | 30.5 | 22 |
| Yekaterininsky Rail- way | 1,871 | 60 | 26.9 | 26 |
| Moscow-Kiev-Voro- nezh Railway | 1,652 | 37 | 16.2 | 10 |
| South-Eastern Railway | 2,168 | 55 | 24.6 | 11 |
| Total | 10,337 | 291 | 128.6 | 84 |

The Yekaterininsky line was constructed by the State; the Southern and South-Western lines were recently purchased from private owners.

The Moscow-Kiev-Voronezh Railway is a private concern with a share capital of £1,500,000. Debentures to the value of £35,000,000 have been issued at 4-4½ per cent. at different periods. The State has power to take over the line at any time on a basis agreed upon in the original concession. There is a State guarantee on the loan capital.

The South-Eastern Railway has only a portion of its line in the Ukraine, mainly in or near the Donets region. The share capital is about £3,000,000. Debentures and other loan capital amount to about £18,800,000. The State has power to purchase the line at short notice on terms fixed in the original concession. There is no State guarantee on the capital or loans. A number of lines in the Donets region,

formerly belonging to the South-Eastern Railway, have been recently acquired by the State.

The money markets of Paris, London, and Amsterdam appear to be those principally interested in the loans of these railways; the financial circles of Berlin and Vienna are concerned in a lesser degree.

Up to the year 1889 railway rates in Russia were in a state of chaos. The Government then took the matter in hand, and during the years 1893-4 inaugurated a system which, with modifications, has remained in use. The zone method is applied to both goods and passengers, with a diminishing rate for each additional zone entered by the traffic. Cereal rates received special consideration, and differential tariffs exist for the carriage to Black Sea and Azov ports of cereals destined for export. Preferential rates are also granted on coal, iron and manganese intended for export.

Adequacy to Economic Needs; Possibilities of Expansion.—Taken as a whole, the railways of the Ukraine are not adequate to the needs of the country. In the Donets region railway extension by private enterprise has kept fairly level with industrial needs, and new projects were recently being actively promoted. In the agricultural portion of the country, however, the lack of railways is a serious handicap to all kinds of industry. The greater portion of the mileage is single line, and the rolling stock is of poor capacity and not kept in good repair.

A number of lines are under construction in the Donets basin to link up existing ones or to serve new mines recently opened, and a new line is being constructed to connect Yekaterinoslav with Kherson and Nikolaev by a direct route.

A projected line is the Podolian Railway, which would run from Shepetovka to Kamenets Podolsk, a distance of 149 miles. By another project a railway running due north from Jitomir *via* Mosir and Mohilev to Vitebsk would give a direct main line between Petrograd and Odessa, which does not at present exist, a detour *via* Kiev being necessary.

The construction of light railways in agricultural districts would be of great benefit to the country, but no steps have as yet been taken towards this end.

(d) Posts, Telegraphs, and Telephones

In organization the Russian postal system much resembles that of other European countries, but in extent it is considerably below the average standard. Rural districts are poorly served, although a special effort to improve their facilities has recently been made. Russia is a member of the Universal Postal Union.

Owing to delay and loss of ordinary correspondence, an immense quantity is sent by registered post, especially commercial correspondence, but also newspapers and periodicals.

Parcel post and the sending of goods 'cash on delivery' are in working, but the regulations as to packing, &c., are minute and very vexatious, though necessary to prevent theft in transit.

The facilities for transmitting money through the post are freely made use of, particularly by peasants working at a distance from their homes. In 1910 there were over 40,000,000 dispatches of this kind, their total value being upwards of £200,000,000.

Telegraphs.—Of the total length of telegraph wire for public use in Russia, more than one-third is owned by the private railway companies, the remainder by the postal department. Charges are low, but the service is moderate. Much use is made of 'urgent' telegrams at triple rates to ensure prompt and correct delivery.

Telephones.—The telephone system is fairly well developed in towns in the Ukraine. Private enterprise first entered the field, a company worked by the Bell Telephone Syndicate obtaining a concession for an installation at Odessa in 1895. Shortly afterwards the State established systems at Kiev, Kharkov, and other towns. Still later the *zemstvos* in certain districts interested themselves, and many systems

have been opened and worked under their auspices and control. The most notable development has been in the districts of Bakhmut (Government of Yekaterinoslav), Lebedyenski (Kharkov), and Lokhivitski (Poltava). Mariupol and district has communication with Bakhmut and other places on the Donets coalfield. Otherwise trunk communication is confined to a line connecting Odessa, Nikolaev, and Kherson.

The instruments of private telephone installations are usually of the Bell Co.'s make. The State and the *zemstvos* have generally installed instruments made by Ericsson, Stockholm.

(2) EXTERNAL

(a) Ports

Accommodation.—The Ukraine is not lacking in good natural ports on the Black Sea: Odessa, Nikolaev, and Kherson are capable of handling great quantities of traffic. On the Azov Sea, Berdyansk and Mariupol share the trade, but in their case purely artificial harbours have had to be constructed at great expense, as the coast has no natural harbour.

There are no tides, any variations of depth of water being caused by wind of great force or long persistence from one quarter.

Odessa is the most frequented port of the Russian Black Sea coast. There is a good depth of water in the bay, but it is much exposed to the two most dangerous winds which blow on the coast, viz. the south and the south-east. The outer harbour is formed by a mole known as the eastern mole, which has a curve to the eastward, and a detached breakwater 1,400 yds. in length parallel with the shore. The eastern entrance has 24–30 ft. of water, and the western 17 ft., and both have an entrance width of 300 yds. This outer harbour is safe from all winds, and gives commodious anchorage.

The inner harbour is formed by five moles which divide it into four parts. The two western moles

form the Imperial or Pratique port, the two eastern moles the Quarantine port, the intervening spaces forming the New and Middle harbours. Three-quarters of a mile to the northward is the Petroleum harbour, sheltered by a long mole. Vessels can load up to 26 ft. in the New harbour, up to 21 ft. in the Middle harbour, and up to 24 ft. in the Petroleum harbour.

There is quayage of 4,550 ft. in length in the Pratique harbour, 3,245 ft. in the New harbour, 4,550 ft. in the Quarantine harbour, and 900 ft. in the Petroleum harbour. There is adequate crane-power and railway accommodation alongside the quays, with extensive warehouses and two large grain elevators. There are two floating cranes, each of 25 tons capacity. The port has a floating dry-dock, 381 ft. long, 63 ft. wide, and 19 ft. 6 in. in depth, with a lifting capacity of 4,800 tons. There are two patent slips for small vessels and a repair yard for light repairs.

Many improvements have been projected, including an additional breakwater for the outer harbour and longer quayage in the Middle and Petroleum harbours.

Nikolaev is a river-port situated on the eastern bank of the Southern Bug. There is a depth of 25 ft. in the river channel up to the town. The granite quay of the commercial harbour is 3,850 ft. in length, and has 26 ft. of water alongside. There are two grain elevators and a good number of cranes. The Cabotage harbour is dredged to a depth of 17 ft.; it is only used by coasters or vessels wintering in the port. A petroleum pier, 900 ft. long, with reservoirs adjacent, is situated above the town.

A new commercial quay, 2,400 ft. in length, was almost completed in 1914. Another, 1,650 ft. in length, was then in construction, but progress on it was reported to be slow.

The naval port and arsenal are situated on the northern side of the town on the banks of the River Ingul. There is a depth of 25 ft. in the naval port. The heaviest marine repairs can be undertaken.

Kherson is situated on the Dnieper, some 15 miles

from its mouth. There are two entrances from the sea, the Rvach and Zbarev channels, the former being 22 ft. deep, the latter only 10 ft. There are three loading berths at a quay, respectively 420, 125, and 425 ft. long, but vessels mostly load in the stream from lighters by means of floating cranes, of which there are 22, or by using their own winches. Vessels are allowed to load up to 23 ft. owing to a recent improvement in the channel. A new quay to accommodate 18 steamers is under construction.

Berdiansk roads are protected by a long semi-circular sand-spit from all winds except the south-west. There is 14–16 ft. of water in the roads. The harbour is protected from all winds by a breakwater 700 yds. in length, parallel with and half a mile distant from the shore line in front of the town. A dredged channel, $1\frac{1}{2}$ miles in length and $16\frac{1}{2}$ ft. deep, leads up to the western end of the breakwater. Quay space is at present deficient, but a first-class port is projected and partially under construction. The harbour is being dredged to increase its general depth to 20 ft.

Mariupol harbour consists of an area on the open foreshore enclosed by two moles. The entrance channel is dredged to a depth of 24 ft., and the depth in the anchorage inside the moles is 22–26 ft. Within the harbour, 440 yds. from the shore line and parallel with it, is a breakwater 500 yds. long. The inner harbour inside this breakwater is reserved for vessels loading coal. Against the quays, where rails run alongside, there is a minimum depth of 12 ft. and a maximum of 24 ft. There are two hydraulic elevators for loading coal, but much coal and all grain is loaded by hand, and mechanical appliances are greatly needed. Mariupol is considered a harbour of first-class importance, and extensive improvements of all kinds are projected.

Nature and Volume of Trade.—Odessa, Nikolaev, and Kherson export cereals and other agricultural products; Nikolaev also exports great quantities of iron-ore and Kherson timber. Many vessels arrive in ballast

to carry these goods. The imports consist of machinery, manufactured goods, colonial and tropical products, and chemicals; Odessa also imports coal from the Donets region, which is shipped at Mariupol or Taganrog.

The export trade of Berdyansk is chiefly coal, iron-ore, and grain. Mariupol principally exports Donets coal. The imports of both places are general, but a large proportion consists of chemicals and particular minerals required in the iron and steel industry in the Government of Yekaterinoslav.

The number and tonnage of the vessels entering the above-mentioned ports in 1910, and the amounts of the exports and imports, are shown in the following table:

| | <i>Total vessels entered.</i> | | <i>British vessels entered.</i> | | <i>Imports (tons).</i> | <i>Exports (tons).</i> |
|-----------|---------------------------------------|-----------|---|---------|----------------------------|----------------------------|
| | <i>Tonnage.</i> | | <i>Tonnage.</i> | | | |
| Odessa | 848 | 1,596,217 | 174 | 388,136 | 566,743 | 1,736,029 |
| Nikolaev | 544 | 1,126,441 | 315 | 676,834 | 178,790 | 2,070,419 |
| Kherson | 152 | 330,260 | 131 | 288,789 | 104,693 | 844,919 |
| Berdyansk | 180 | 269,365 | 38 | 65,492 | 28,693 | 416,451 |
| Mariupol | 231 | 394,451 | 67 | 119,242 | 266,693 | 1,587,161 |
| Total | | | | | 1,145,612 | 6,654,979 |

The respective values of the exports and imports are more difficult to ascertain, but the difference in value is certainly not so great as that in weight. For some years before the war, the value of the exports of the whole of Russia exceeded that of her imports by about 40 per cent., and the proportion for the Ukraine ports is probably about the same.

Adequacy to Economic Needs; Possibilities of Development.—The Ukraine Black Sea ports would appear, on the whole, to be equal to the demands put upon them; in fact, there is severe competition between Odessa and Nikolaev. The recent improvements at Nikolaev have inspired the Odessa authorities to apply for powers to carry out great extensions, but so far these have not been granted, as the central authorities held that there was no prospect of a good return on the capital that would be required.

The port of Kherson is handicapped by the expense and difficulty of keeping open a good channel from the mouth of the Dnieper to the town.

The two Azov ports are in a somewhat congested state, and need additional quay space, loading appliances, and powerful ice-breakers. Their importance for the export of coal and iron-ore as well as of grain is recognized, and it is understood that large sums would be forthcoming to effect improvements.

Two other ports in the Ukraine which are very suitable for development are Ochakov, on the north bank of the Dnieper-Bug estuary, and Shadovsk, which is situated in a land-locked bight a few miles west of the isthmus of Perekop. At present neither is touched by any railway, and they offer no facilities to shipping; but they are so favourably situated that their development at reasonable cost would probably be more beneficial to the Ukraine than expensive improvements at Odessa and Kherson.

(b) Shipping Lines

Before the war Odessa was visited by regular lines of steamers with passenger services, and the other ports by 'tramps' exclusively.

There are several Russian-owned lines. The Russian Volunteer Fleet Association, a subsidized undertaking, made regular voyages between Odessa and Vladivostok with a view to developing trade between Russia and her possessions on the Pacific. This line, which has a fleet of 70 vessels, with a tonnage of about 150,000, is not a commercial success.

The Russian Steam Navigation and Trading Co. provided passenger services in the Black and Azov Seas, and had other lines to Mediterranean ports. Its fleet consisted of 65 vessels, with a tonnage of 150,000.

The Russian Transport and Insurance Co. had a fleet of ten vessels, mostly tramps, with a tonnage of 12,000.

Peter Regier & Son had nine tramp steamers, of a total tonnage of 22,000.

The Russian Danube Steam Navigation Co. traded from Odessa to Danube river ports. It had a fleet of eleven vessels, with a tonnage of 9,000.

The following foreign lines had regular sailings to Odessa: Thos. Wilson, Sons & Co., thrice weekly, from Hull; J. R. Ellerman, Ltd., fortnightly, from Liverpool; James Moss & Co., every four weeks, from Liverpool; the Messageries Maritimes, fortnightly, from Marseilles; and the Deutsche Levante Linie, monthly, from Genoa.

Tramp steamers of many nationalities are attracted in great numbers to Ukraine ports in the autumn for the shipment of the cereal crop, and there is seldom any lack of cargo space.

The foreign lines with regular services appear capable of meeting the normal demand on their cargo space. The Russian lines require Government support, as shipping under the Russian flag is not as a rule commercially successful.

(c) *Telegraphic Communication*

Telegraphic communication with foreign countries is dependent mainly on cable lines not situated in the Ukraine, which has only one cable, from Odessa to Constantinople, the joint property of the Indo-European Telegraph Co. and the Eastern Telegraph Co. Telegrams for the East are sent *via* the Kertch station of the Indo-European Telegraph Co.; those for northern Europe or America, *via* Petrograd and thence by various cable lines.

(B) INDUSTRY

(1) LABOUR

(a) *Supply of Labour; Emigration and Immigration*

The line of cleavage between agricultural and other labour is not so sharp in the Ukraine as in most other communities. The claims of agriculture are the greater by far, but the increase in the number of landless peasants who find it difficult to live in the country

districts through the long winter has led to the creation of a large class who migrate according to the season, working for wages on the land in summer and moving to the towns in search of work in winter. A slight permanent movement to the towns is in progress, but the rate is not rapid. As the Little Russians are not naturally energetic or industrious, the supply of labour for industries other than agriculture is not equal to the demand, and immigration from other parts of Russia is continuous. The heavier classes of work in the industries of the Donets and Krivoy-Rog regions are seldom undertaken by the natives of the country. The underground labour of the mines and the foundry work is done mainly by Great Russians, who come from the Governments of Smolensk, Orel, Kursk, Mohilev, and Simbirsk. The port labour at Odessa and Nikolaev has attracted a population of mixed nationality with a low standard of living, who exist between seasons in a state of semi-starvation.

In the agricultural world labour is fairly plentiful, but the neglect to cultivate such lands as are not suitable for cereals has led to a summer immigration of Bulgarians, who raise fine crops of vegetables and ground fruits on low-lying land, supplying not only the neighbourhood but far distant towns. These immigrants return home in winter.

There is no great permanent emigration from the Ukraine except among the population in the region of the upper Dnieper, a fair number of whom leave for the Polish industrial districts owing to bad conditions at home.

(b) Labour Conditions

Labour conditions cannot be called good in any branch of industry. The State makes no effort to regularize the supply and very little to better the conditions of labour. The landless agricultural proletariat, which is increasing steadily, lives in a hand-to-mouth fashion, and its position is gradually growing worse. Lacking energy and ability, individuals of

this class are often compelled to accept badly-paid work in the towns, and both men and women have often to make long and laborious journeys on foot in search of employment.

A large class engaged in domestic industries, whether as masters or as servants, make a very poor living, frequently working very long hours under bad sanitary conditions.

In the coal and iron industries there are some concerns, particularly those capitalized from abroad, which look well after their work-people, provide housing, secure good supplies of provisions at moderate prices, and take other measures to ameliorate labour conditions. In consequence, however, of works and mines being often situated on land rented on short-term leases, many employers cannot afford to lay out money on such objects, and conditions for labour are generally bad. So difficult is it to attract labour, that mine-owners have sometimes sought to secure convict labour from the Government.

The peculiar characteristic of labour in the Ukraine is its mobility, which often occasions unexpected crises. Superstition, epidemics of disease, and more obscure causes lead to vast movements of labourers from a district at very short notice.

The *artels*, which are labour organizations peculiar to Russia, have an important influence on the supply and quality of certain labour. An *artel* is an association of workers, the general principles of which are: (1) all members must be actual workers; (2) all have equal rights in the organization; and (3) every member is responsible for the obligations contracted by the *artel*. The organization is usually non-capitalistic or has a very small capital.

In general there are two classes of *artels*, those of workers in producing trades and those of workers who provide service. The former are engaged in carpentering, cabinet-making, printing, linen-weaving, dairy-work, fishing, &c. The second group comprises stevedores, packers, customs agents, bank porters, com-

missionaires, dock and wharf labourers, outdoor servants, &c. The members of *artels* in the second group always receive employment in preference to other workers, as their trustworthiness is guaranteed by the *artel*, and the fact of their membership is some guarantee that they are efficient.

The *artels* are democratic and useful institutions, and, in a country where promptness and trustworthiness are somewhat rare qualities, they play a most valuable part in giving a measure of confidence and security to both employers and workmen.

(2) AGRICULTURE

(a) *Products of Commercial Value*

The agricultural industry is the largest in the Ukraine, and employs the great majority of the population. The black-soil region extends over most of the area, only the Governments of Kiev, Podolia, and Chernigov, and the borders of the Black Sea, lying outside it. It follows that the suitability of the Ukraine for cereals is equal to that of any part of the world, and its surplus crops form a considerable proportion of the world's food-supply.

The mean area under cultivation in the period 1901-5 was 52,000,000 acres, producing 20,700,000 tons annually. Of this total, 45,600,000 acres were under breadstuff crops, and produced 15,000,000 tons. For the year 1914, the figures were 56,300,000 acres, producing 23,000,000 tons. Of this 50,400,000 acres were under breadstuff crops, with a return of 15,900,000 tons.

Rye is the principal crop, and is produced on the peasants' lands more largely than any other cereal. It is the staple breadstuff of the country, and the internal consumption absorbs a large part of the crop, a minor quantity only being exported. In some years the crop is not sufficient for the home demand, and the peasants have to use imported flour or substitutes.

Wheat is next in importance, and provides the largest surplus for export. It is mainly grown on

privately-owned lands. The failure or success of the Ukraine wheat harvest has its effect upon the corn exchanges of the whole world, and its shipment from the Black Sea is the occasion of much anxiety and speculation every season.

Barley is largely grown and exported, being principally raised on privately-owned land. *Maize* comes next in value; the greater part of the crop is consumed locally, but a moderate quantity is exported in good years. The *oat* crop is valuable, and a proportion remains for export after the supply of local needs. *Millet* and *buckwheat* are grown for local use.

Of the non-cereal crops, *potatoes* take the first place, exceeding all others by a large margin. They are used not only for food and the manufacture of potato flour, but for the distillation of spirits, a flourishing industry in many districts. Small crops of *peas*, *beans*, and *lentils* are also grown.

The *sugar-beet* is raised in great quantities, especially in the governments which have not the black soil. Kiev produces most, Podolia and Kharkov come next; the remaining Governments have only small crops, and Taurida and Yekaterinoslav none. There is usually a large surplus of refined sugar for export, in addition to a valuable internal trade in sugar and manufactures thereof; the by-products of cattle food and spirit distilled from molasses increase the value of this crop.

Tobacco used to be widely cultivated except in the black-soil zone, but its cultivation is steadily decreasing everywhere. It still remains important in the Governments of Poltava and Chernigov. Only the coarsest qualities are raised, the leaf being known as *makhorka* and used solely by peasants and labourers.

Volhynia grows a large quantity of *hops*, about half the total yield of all Russia. The product is mostly sold locally, but occasionally a surplus is exported to the Warsaw market.

The *grape vine* is cultivated in Podolia, Kherson, and Yekaterinoslav. The wine produced is of inferior quality, and has only a local market.

Of the crops producing vegetable oils, *linseed* and

sunflower are the principal. A great deal of sunflower seed is eaten raw by peasants and labourers all over Russia. These two crops are decreasing.

Fruit and vegetables.—The orchard districts are in the Governments of Podolia, Chernigov, Poltava, and Kiev. Apples, pears, plums, cherries, mulberries, and apricots grow freely, and the surplus goes to northern Russia, great quantities being preserved. Vegetables succeed well in the alluvial soils near the rivers. They are mostly grown by summer immigrants from Bulgaria (cf. p. 72), who use a primitive system of irrigation. The surplus supply all goes to northern Russia.

The live-stock of the Ukraine is very numerous, but of late years has tended to decrease.

Horses are much in demand for agricultural work, especially as the use of oxen as draught animals is being gradually abandoned. There is also a strong demand for horses in the coal and iron region for haulage. As a result the stock of horses has considerably increased in six out of the nine Governments, Volhynia, Podolia, and Chernigov alone showing decreases.

Cattle have decreased in numbers in five Governments and increased in four, but the total shows a serious falling off.

Sheep are divided roughly into two classes, fine-woolled and coarse-woolled, the former producing wool known as 'Spanish', the latter being killed for their skins. There is a general decrease of stock in every province of the Ukraine. The great increase of population and the demand for land, with rising rents, make sheep-farming not sufficiently profitable under present agricultural conditions.

The stock of *pigs* is, on the whole, maintained, and even shows a good increase in some Governments.

The *goat* was formerly of importance, and there was a considerable stock in the country, but it has dwindled latterly at a very rapid rate.

Poultry are kept in considerable numbers, but poultry-farming on modern methods is very rare and of small economic importance.

Apiculture is common in the northern Ukraine, and

vast quantities of honey are produced, but its quality suffers from the prevalent ignorance of scientific methods of bee-keeping, and it does not command a good price.

Disease among domestic animals causes great ravages. Cattle-plague epidemics are of annual occurrence and cause heavy losses, the proportion of fatal cases being very high. The other most prevalent troubles appear to be anthrax, frounce in horses, and pneumo-enteritis amongst swine. The last disease has made great inroads of latter years, a large proportion of cases being fatal. The proportion of live-stock per 100 inhabitants shows decrease under almost every head, a slight increase in horses or pigs in some Governments by no means counterbalancing the all-round continuous shrinkage.

(b) *Land Tenure¹ and Methods of Cultivation*

As regards tenure, land in the Ukraine falls into three main classes: (1) land owned privately, mainly in large estates, but a small proportion in farm-holdings by successful peasants; (2) land termed *nadyel*, owned almost entirely by peasant communes; and (3) land owned by the Orthodox Church or the Crown, or granted as appanages to members of the Imperial family. The following table shows the total acreage, and the proportion belonging to each of these classes:

| <i>Government.</i> | <i>Total area in millions of acres.</i> | <i>Percentage of</i> | | |
|--------------------|---|------------------------------|----------------|---|
| | | <i>Private property.</i> | <i>Nadyel.</i> | <i>Church and Crown land, &c.</i> |
| Volhynia | 15,484 | 48·9 | 39·8 | 11·3 |
| Podolia | 9,873 | 44·4 | 48·0 | 7·6 |
| Chernigov | 11,836 | 41·7 | 53·1 | 5·2 |
| Kiev | 12,484 | 45·2 | 45·6 | 9·2 |
| Kherson | 16,591 | 51·5 | 37·3 | 11·2 |
| Poltava | 11,331 | 45·1 | 52·3 | 2·6 |
| Kharkov | 12,141 | 35·8 | 59·2 | 5·0 |
| Yekaterinoslav | 15,041 | 50·4 | 45·4 | 4·2 |
| Taurida | 7,099 | 52·6 | 37·2 | 10·2 |
| Total | 111,880 | Average 46·2 | 46·4 | 7·4 |

¹ See also p. 50.

Land tenure in the Ukraine is at present in an unstable state. The principal factors affecting it are two legal enactments, the first being the law of 1861 abolishing serfdom and providing for the ownership of land by peasants, who previously had held none, and the second being the Stolypin law of 1906 modifying the principle of communal ownership in peasant lands. The law of 1861 provided for land to be taken from private estates and handed over to peasants on a deferred purchase system. The land was not assigned to individuals, but to *mirs* (local communes), which divided it up for cultivation. The law also provided for periodical redistributions of this land, which is known always as the *nadyel* or endowment land. At the present time a good deal of *nadyel* land in the Governments of Poltava and Chernigov is held by individual peasant owners, but elsewhere it is all owned by communes. A peculiar principle of this system is the mutual responsibility of all members of the commune for its legal and financial obligations, even should a member have forsaken the locality and the practice of agriculture.

The great defect of the distribution of 1861 is that it is based on the rural population of that date, with no machinery for providing additional land in proportion to the natural increase of population, which has been very rapid. Two evil results have followed. First, at the periodical redistributions of *nadyel* land the amount available per head has steadily decreased. The holdings have therefore tended to become uneconomical, and a consequent impoverishment of the peasants has taken place, with the natural concomitants of arrears of rent and taxes and an increased burden of debt on the land. Secondly, efforts to purchase or rent further land from private proprietors, in order to increase the available *nadyel* land or supply the wants of prosperous peasants who wish to buy new farms, has led to an enormous increase in the price and rent of land, a rise of three times being frequent and a tenfold rise occasional. To

alleviate these conditions various measures have been adopted, such as the easement or complete extinguishing of the burden of the purchase-price of the *nadyel*, the prevention of its frequent redistribution, and the founding of the Peasants' Land Bank by the State to facilitate further purchases of land by the communes. Nevertheless, a result not looked for by the framers of the law abolishing serfdom has followed, namely the creation of a large landless agricultural proletariat, which tends to sink in the social scale, to live partly by industry in the towns, and to be migratory in its habits.

The law of 1906 introduced for the first time the general principle of individual and permanent ownership of *nadyel* lands. It aimed at the breaking up of the *mirs* as no longer fulfilling a need, in the expectation that security of tenure by the individual would lead to a more rational and successful system of cultivation. The period since the promulgation of the law is too short to allow of sound conclusions as to its effect.

The *nadyel* lands are almost entirely cultivated on the three-field system, each unit of land being planted one year with a winter-sown grain, the following year with a spring-sown grain, and lying fallow in the third year. This method causes a disastrous impoverishment of the land, especially as in many cases the minimum of manure, whether animal or chemical, is used. An alternative method must be introduced, or the productiveness of the black-soil land under peasant ownership will continue to shrink as heretofore.

The land held by private owners is in general their perpetual freehold, and can be roughly divided into that held by the nobility in large estates and the smaller holdings purchased from them since the abolition of serfdom by prosperous peasants and others desirous of embarking on agriculture on their own account. There are also a number of foreign colonists, chiefly Germans, descendants of those introduced into the country

by the Government at various times between the middle of the eighteenth century and 1861, in the hope that their superior methods of agriculture would be copied by other cultivators. This effect, however, was not produced, and the colonists form compact communities with little or no influence on their neighbours. Land in private ownership is usually farmed on more modern and rational principles than the *nadyel* land, and produces almost the entire surplus of cereals which is sent abroad and to other parts of Russia.

The land owned by the Church, Crown, and members of the Imperial family is absolute freehold, and is generally well managed and productively farmed.

Up-to-date agricultural machinery is becoming more common all round. It is of course most in vogue on the large estates, especially in the case of expensive machines involving the use of power; steam-ploughs on the cable system are much in use on the large sugar-beet estates, and tractor ploughs with single engines are becoming numerous. By the help and enterprise of the *zemstvos* the peasants are now beginning to use modern machines and implements. The traditional *sock* or wooden plough, the flail, and other such primitive tools are disappearing, although it is hard to induce the peasant to abandon his old methods.

(c) *Forestry*

A large portion of the Ukraine is totally denuded of trees at the present time. The Governments of Podolia and Volhynia, and the northern parts of Kiev and Chernigov, are well wooded, the area covered by forest being about 15 per cent. of the whole. In the remaining provinces the forest area averages 3-4 per cent. of the total. The State controls certain areas north of Kiev on both banks of the Dnieper, and in Volhynia on the south side of the Pripet marshes, as well as smaller scattered tracts in Podolia. In the Government of Yekaterinoslav the State has lately done much

planting, principally of sand-willows and pines, the main object being to arrest the movement of drift-sand.

The principal Ukraine timber trees are oak, maple, elm, ash, willow, aspen, lime, and wych-elm.

The art of forestry would appear to be almost entirely neglected. Systematic replanting of timber is hardly known, and wholesale destruction of woods on the river banks has had disastrous results in the splitting up of the channels. The lime is frequently denuded of its bark to make bast, the tree subsequently perishing as it stands.

(3) FISHERIES

The fisheries of the Ukraine can be divided into three classes : those of the upper reaches of the rivers, those of the lower reaches and the lagoons at the mouths, and those of the Black Sea and the Azov Sea.

In the upper reaches of the principal rivers, fishing can scarcely be called an industry, being carried on by individuals mainly for their personal needs ; the stock of fish is everywhere decreasing at a regrettable rate, and much alarm is caused by this depletion.

The fisheries of the lower reaches of the Dnieper, Dniester, and Southern Bug have considerable value. The principal fish taken are sturgeon, of which there are several varieties, carp, bream, fresh-water herring, and sander. The fisheries are the property of the riparian owners, who let them to syndicates. The State owns a considerable stretch on the Bug from Nikolaev to Novaya Odessa. The fishing seasons are from February to April and in the autumn, when the fish revisit the rivers to spawn. At this time they are taken for the roe, from which caviare of various qualities is made.

In the Black Sea the principal fish are mackerel, anchovy, and flounder. The fishing here is also carried on by syndicates, and is done close to shore with rather primitive appliances. The bulk of the fish is preserved

either by salting, smoking, or sun-curing. Fish-curing is carried on in factories at Odessa and Ochakov.

The fisheries in the Azov Sea are important, but the principal grounds are not in Ukrainian territory, those which lie within its limits being of insignificant value.

(4) MINERALS

(a) *Natural Resources*

The principal mineral resources of the Ukraine are coal, iron, and salt.

The *coal* is all in one large field usually known as the Donets basin, which extends from west to east for a distance of 300 miles. It is considered the largest coalfield in Europe, but owing to peculiarities of the geological strata it is split up into several areas with varying qualities of coal. Roughly the flame coals are on the western end of the field, the coking and semi-anthracite coals in the centre, and the anthracite in the east, though coking coals are also found towards the north-east corner. Very little pure anthracite is mined on Ukraine territory, as the beds are mainly in the Don Cossack district. Throughout the field the seams vary much in thickness. Some are too thin to be worked. The average thickness of those worked is 21 to 35 in. ; seams of 5 ft. are moderately common, and the maximum thickness is 7 ft.

The output of coal from the Donets field is variable. This is chiefly due to labour difficulties, which arise in unexpected ways. Nevertheless if the figures of several years are considered together, a great increase is shown, and new pits are being opened every year. The average production for the years 1908 to 1912 was over 14,000,000 tons, the proportion of bituminous coal to anthracite being as 8 to 1. The figures include the whole field, as separate statistics for the portion over the Don Cossack border are not issued.

Iron.—The Ukraine is fortunate in having in close proximity to its coalfield a district rich in iron ore. The deposit, which is of excellent quality and easily worked,

is near the small town of Krivoy-Rog on the borders of the Governments of Yekaterinoslav and Kherson, between the town of Yekaterinoslav and the port of Nikolaev. This district has produced 95 per cent. of the iron ore mined in European Russia in recent years, and after supplying the needs of the numerous iron-works on the Donets coalfield and dispatching great quantities to other parts of Russia, it exports a large surplus through the ports of Nikolaev and Mariupol. This supply is eagerly taken up, principally by Great Britain and Germany.

The Krivoy-Rog iron is a brown non-phosphoric ore, containing about 70 per cent. of pure iron. The output is steadily increasing: the ore mined amounted in 1906 to 3,000,000 tons, and in 1910 exceeded 4,000,000 tons. There have been further increases since.

Deposits of *manganese* ore are found in the Government of Yekaterinoslav at Nikopol on the lower Dnieper, a few miles east of the Krivoy-Rog iron district. Exploitation began in 1886, and has been very successful.

The production, of which 75 per cent. is exported, fluctuates greatly according to the price of manganese abroad, and a maximum output of 300,000 tons in 1907 was succeeded by a fall to one-half this amount in 1909, with a slight recovery in the following years.

Mercury has been exploited since 1879 at Nikitovka, in the Government of Yekaterinoslav. The mineral is found in the coal measures near the surface. After being successfully worked for thirty years, the mines were closed about 1909.

Salt.—The Ukraine has valuable deposits of salt. There is an important mine of rock-salt near Bakhmut in the Government of Yekaterinoslav. Boring has been continued to a depth of 760 ft. without passing through the entire thickness of the salt bed; of this 340 ft. consists of pure salt.

On the edge of the Kouyalnitski lagoon, north-east of Odessa, there is a salt lake which produces enough

salt for the domestic needs and preserving industries of the neighbourhood.

Brine springs are worked at Bakhmut and at Slavyansk in the Government of Kharkov. The brine is pumped to the surface and the salt evaporated.

The salt production is increasing but slowly, and not in proportion to the needs of the preserving and curing industries of Russia; prices are rising and imports increasing. The average output for the years 1905-9 was 1,326,000 tons of pure salt, which was over 50 per cent. of the production of all Russia.

Building stone.—Quarrying for limestone is a great industry near Odessa, which is built of the local stone. Granite is quarried on the banks of the larger rivers, and Yekaterinoslav and other towns are largely built of granite, which is also used for harbour works and railway bridges.

Pottery clays.—Kaolin is found in the Ukraine, the entire output of Russia being produced within its boundaries. Clays of good quality exist in the Governments of Poltava, Kharkov, and Kherson, and supply material for the local domestic industry in earthenware.

(b) *Methods of Extraction*

There is nothing new or striking in the methods used for extracting the minerals mentioned; on the contrary, except where foreign capital is interested, they are on the whole not equal to those followed in western Europe and America. The greatest drawback is the low producing power of labour, for which no immediate remedy is to be found. There is room for improved machinery on a large scale, but unless the habits of the people change, the output per head will remain comparatively small.

(5) MANUFACTURES

Manufacturing industry plays a relatively small part in the economic life of the Ukraine, the country not producing sufficient for its own wants and import-

ing both from abroad and from other parts of Russia. The two principal exceptions to this rule are manufactured food-stuffs, and heavy iron and steel products.

Sixty-eight per cent. of the manufactured products of the country consist of food-stuffs. The industries contributing to this output are various, including flour-milling, sugar-refining, and those dependent wholly or partly upon sugar, such as confectionery, fruit-preserving, distilling from molasses, brewing, and wine-making. Most of the undertakings concerned have only a small capital, and are situated near the source of their raw material. In the neighbourhood of Kiev, however, sugar-refining and its dependent industries are carried on in large works, many of which are capitalized from abroad.

The close conjunction of the Donets coalfield and the iron and manganese deposits has enabled the Ukraine to be almost entirely self-supporting in iron and steel manufactures of the first categories, and to supply the wants of the remainder of Russia as well. Pig-iron, bar-iron, roof-iron, steel rails, axles, tubes, and assorted merchant iron are all made in the iron-works which have been established in increasing numbers on the coal and iron fields. These works are seldom in large centres of population, but as a rule in small towns and villages, some of which owe their existence to the need of housing for the labour employed.

The output of raw iron and steel in the first stage of manufacture under the headings of Bessemer and Thomas bars, Martin-process bars, cast-iron and steel billets, and cast-iron tubes, was in 1906 1,300,000 tons, and in 1910 1,900,000 tons. The output of iron and steel in the second stage of manufacture, under the headings of T and H beams, rails, sheet-iron, rolled wire, roof-iron, trusses, springs, assorted merchant iron and axles, was in 1906 1,010,000 tons, and in 1910 1,602,258 tons. In the former year the output in both stages was equal to about 45 per cent., and in the latter year to about 55 per cent., of the total Russian output.

The development of the industry on a large scale dates from the year 1870, when a British subject named Hughes received from the Russian Government a concession for the manufacture of iron rails. The company founded by him exists to-day under British management at a place called Hughesovka, and is known as the New Russia Co., Ltd. It has been followed up by a great number of other enterprises, some Russian, but most founded by British, French, and Belgian capital, which has been freely invested in the industry during the last forty years, particularly between 1880 and the end of the century.

Agricultural machinery is in constant demand. When first used in the country, it had all to be imported, but of late it has been manufactured in the Ukraine in increasing quantities. Although the customs duties on agricultural machinery are low—certain types in fact are admitted free—the machinery made in the country finds more favour every year. For certain complex machines the Ukraine is still dependent upon imports, but, apart from these, it will probably be able in time to produce all the agricultural machinery it needs. In 1913, out of a total of 770 agricultural machinery factories in Russia, 271 were situated in the Ukraine. The value of their output was 31,000,000 rubles, that of the whole of Russia being 54,000,000 rubles. In addition to the production of the factories, large quantities of tools and machinery of the simpler sort are made by domestic workers, working single-handed or in small syndicates.

The principal agricultural machinery works are in the Governments of Kherson, Yekaterinoslav, Taurida, and Kharkov. The firms John Greaves & Co. and E. L. Mathias & Sons (Berdiansk), Hartmann Machinery Co. (Lugansk), H. A. Klassen (Sofiesk), R. & E. Elworthy (Yelisavetgrad), I. I. Hoehn (Odessa), and Franz & Schroeder (Neu-Halbstadt), are among those doing the largest business, and the names of the concerns show how largely foreign enterprise has entered this field, none having a Russian title. At Kiev and Kharkov

there are several large factories which specialize in every kind of machine necessary for the sugar industry.

Several other industries, while of small account in comparison with those described above, deserve mention.

Manufacturing enterprises dependent upon animal products divide themselves principally into tanneries and woollen factories. The centres of the leather industry lie in the northern portion of the country, especially in the Governments of Kharkov, Poltava, Chernigov, and Podolia. This industry accounts for 4·5 per cent. of the total manufacturing output of the Ukraine. The woollen industry is centred in Kharkov, which has two large cloth mills, and in the town of Klintsi in the Government of Chernigov, where not only cloth but knitted goods, yarns, rugs, shawls, and other woollen goods are turned out from eight considerable factories. The production of woollen goods represents 3·5 per cent. of the total Ukraine output of manufactures.

The timber-working industry is chiefly found in the riparian towns, especially on the Dnieper. Yekaterinoslav takes first place, and Kremenchug, Alexandrovsk and Kherson also have saw-mills. Much of the timber shipped abroad is in an unworked state, and manufactures of the better sort are poorly represented. The industry accounts for only 4 per cent. of the value of the Ukraine manufactures.

The chemical industry is of minor importance. It is concerned chiefly with the products and by-products of coal gas at Odessa and Kharkov, but there is also a soda factory in the Bakhmut district and there are a number of match-factories in the Novozibkovsk district of Chernigov. The products of the industry represent only 3·5 per cent. of the value of the manufactures of the Ukraine. None of the more advanced branches of the industry is established in the country.

The industries enumerated account for 90–95 per cent. of the manufactures of the country. The remainder, grouped under the headings of paper, linen, cotton, and fibre industries, are of negligible account.

In addition to factory industries there exists in Russia a group known as *kustarni* or domestic industries. They are considered so important by the Government that measures are taken by the various authorities to improve their output and conditions, to revive old ones and even to found new ones. Their range is wide, and they are carried on by families, by working syndicates or *artels* (cf. p. 73), or by individuals. In the Ukraine these industries are less well developed than in most parts of Russia, and in some provinces are hardly represented. There are three branches well established. Pottery is manufactured in the Governments of Kiev, Chernigov, and Poltava, where suitable clays are found, and the *kustarni* earthenware of these districts has a good reputation all over the country. Shoes, harness, and other leather goods are produced in the Governments of Poltava and Chernigov. Combs, buttons, and other objects made from animal horn are also a noted product of Poltava.

(6) POWER

In the Ukraine power is almost exclusively produced by steam. Electric power is used for the tramways in Odessa and Kiev, but water-power is neglected, and electric drive for factory work is not employed.

(C) COMMERCE

(1) DOMESTIC

(a) *General Characteristics ; Markets, Fairs, &c.*

The trade of the Ukraine consists almost entirely in the movement and marketing of the produce of the land in one form or another. One of its noticeable features is the passage of commodities through several hands before they come into use. Nowhere are found so many middlemen, salesmen, and agents. This is caused principally by the lack of capital in the hands of the producer and a general encumbrance and hypothecation of land, crops, machinery, &c. There is

a very large population of Jews, who have become general tradesmen and brokers to the community.

The cereal crop is the subject of elaborate commercial transactions, and much of it is sold two or three times before it is harvested. The lack of proper storage leads to the rapid dispersal of the bulk of the surplus crop. Odessa and Nikolaev have corn exchanges where the export of the crop is financed, and there is an exchange for internal cereal trade at Yelisavetgrad.

The sugar trade is subject to Government control. A committee fixes annually the amount of sugar to be placed on the home market and the distribution of supplies to the refineries, the quantity so dealt with paying the minimum excise. After this allocation any surplus remaining is disposed of according to the general state of the market and the stock held over from the previous season, and is allotted for internal use or export. Russia was a signatory to the Sugar Convention of 1907, and agreed that, during the six years from the date of the convention, she should not export 'in all more than 1,000,000 tons. This specially affected the Ukraine as the principal sugar-producing area in Russia.

The sugar and alcohol markets are at Kiev, Kharkov, and Odessa.

Wool of the finer sorts called 'Spanish' is dealt in principally at Kharkov, which is also the chief market for leather.

There is a flax market at Novozybkov in the province of Chernigov.

The principal timber markets are Yekaterinoslav and Kherson.

// Odessa is a market for a great number of commodities produced in the interior, especially food-stuffs, cattle, tobacco, and vegetable oils.

The custom of transacting important business at fixed fairs is of very long standing in the Ukraine, and, while the importance of every fair tends to decrease at present owing to the adoption of other methods of trading, the fairs continue to be held, and, especially

in petty classes of trade, are still the occasion of much buying and selling. The principal ones are as follows:

At Kiev the so-called Kontraktovaya fair is held from February 5 to 29. The goods dealt in are carpets, woven materials, silk, ready-made clothing, wooden goods, preserved fish, groceries, sugar, flax, iron, machines, coal, and salt. The real importance of the fair lies in its being the meeting-place for traders of all sorts from the neighbouring provinces. Bankers, agriculturists, and manufacturers meet to settle old and to make new contracts (hence its title), to liquidate or renew bills, &c. The turnover is about £250,000.

Poltava has a fair called Illinskaya from July 1 to 31. It is exclusively for the sale of skins, leather, and manufactures thereof. The turnover averages about £100,000.

Kharkov has four annual fairs, named after the religious festivals at which they are held: (1) Kreshenskaya (Epiphany), January 6 to February 1, for trade in manufactured goods, groceries, peltry, and leather. The turnover is about £1,250,000. (2) Troitskaya (Trinity), June 1 to 30, for trade in wool, sheepskins, and manufactured goods. Turnover, about £500,000. (3) Uspenskaya (Assumption), August 1 to 31, for manufactured and colonial goods. Turnover, about £900,000. (4) Pokrovskaya (Intercession of the Virgin), October 1 to 26, for general trade, as at Kreshenskaya. Turnover, about £1,250,000.

Jitomir has a hop fair from September 6 to 14 for the sale of the season's crop, the value of which fluctuates widely from year to year.

A large annual fair, principally for the disposal of wool, is held at Kakhovka.

The internal trade of the Ukraine is generally conducted on the basis of a long credit, six to nine months by bill; and the fairs and exchanges give opportunity to gauge the general financial state of the country, which is almost totally dependent upon harvest conditions, and to provide for liquidation or renewal of the floating credit as circumstances require.

(b) Organizations to promote Trade and Commerce

Organizations to promote trade in the Ukraine are not numerous. The true traders of the country are the native Jews, and to trace their involved dealings is impossible.

The sales of the coal and iron are almost wholly controlled by rings and cartels. The most powerful one, the *Prodamet*, or metal sales combine, controlled recently over 80 per cent. of all the iron and steel produced in South Russia and threatened to absorb the entire output.

The activities of the *zemstvos* in trade call for mention. These organs of local government actively enter into trade in agricultural machinery, improved seed, and pedigree live-stock, and endeavour to improve the facilities for selling the products of domestic industry. Their aim is to lift the internal commerce of the country from the condition of dependence on speculating middlemen, into which it has almost irretrievably fallen, but their achievements so far only touch the fringe of a deep-seated social trouble.

There are chambers of commerce at Odessa, Kiev, Kharkov, Berdyansk, and Mariupol, and there is a branch of the Russo-British Chamber of Commerce at Odessa. Odessa, Nikolaev, and Yelisavetgrad have corn exchanges, and coal and iron exchanges exist at Kharkov.

(c) Foreign Interests and Methods of Economic Penetration

The present state of commerce in the Ukraine provides a wide field for economic penetration from abroad. Agriculture in its first stages is not much affected, but in one case, that of the production of sugar from beet, the secondary stages of manufacture have been much exploited by foreign capital and management. The coal and iron mining industries and the iron and steel manufacturing industries owe their foundation in great measure to foreigners, by whom they are still largely

managed and financed. Russia has not been able to find capital for new projects, with the result that within the last twenty-five years numerous undertakings have been started with foreign money. Official lists show that the nation most largely interested is France, Belgium and Great Britain coming next. The fortunes of these enterprises have varied, but in general their success has not been great in proportion to the original capital.

The last quarter of a century has also seen the foundation of a number of trading banks with Russian titles and boards of directors at least nominally Russian. Their resources, however, are largely provided and completely controlled from Germany. These institutions have admittedly acquired a controlling interest in most of the concerns above mentioned, often at a very moderate outlay, and have supplied additional loan capital at profitable rates of interest. One and the same bank has in many cases obtained control over every stage in the production of a manufactured article, from the winning of the raw material onward, of course drawing its profit from every undertaking concerned. Certain British concerns have held out and kept their shares in their own hands, but financial institutions governed by German capitalists have a preponderating hold on those industries of the Ukraine which are large enough to repay their attention—that is, on the coal, iron, and allied industries of the Donets, and the sugar industries of the Kiev district.

The foreign interests in the Ukraine lie principally in the industrial concerns above mentioned. British interests are not strong, and are chiefly represented by some collieries and ironworks at Alexandrovsk and the general properties of the New Russia Co., Ltd., at Hughesovka and elsewhere (cf. p. 86).

(2) FOREIGN

(a) *Exports*

No separate figures as to exports from the Ukraine are given in official statistics, which in every case refer to the Empire as a whole. Owing, however, to the nature of the exports, it is possible to draw some general conclusions.

The total exports of Russia for several years of the twentieth century have averaged £100,000,000 in value. Considerably more than half at all times, and frequently as much as two-thirds, come under the heading of food-stuffs. Of these, cereals and sugar are certainly almost entirely of Ukrainian origin. Butter and eggs, the two other most notable items, are not exported from the Ukraine in any quantity, but the total value of these exports does not approach a quarter of the value of the exports of wheat alone.

The following figures show how the export of cereals, especially wheat, varies according to the harvest. Of the years quoted, 1908 was poor, 1909 good, and 1910 excellent :

| | 1908. | 1909. | 1910. |
|--------|------------|------------|------------|
| | £ | £ | £ |
| Wheat | 11,200,000 | 38,400,000 | 40,500,000 |
| Rye | 2,500,000 | 3,400,000 | 2,900,000 |
| Barley | 13,200,000 | 16,500,000 | 15,800,000 |

Wood and prepared timber are largely exported from Russia, and a small proportion comes from the Ukraine.

Of hides, another important export, the Ukraine furnishes a good share, and the same remark applies to oil-seed products.

Iron-ore exports are almost entirely of Ukrainian origin, coming from Krivoy-Rog.

The above headings cover the most important articles which the Ukraine has for export. The wheat goes principally to Great Britain, Holland, and Germany; the rye to Austria, Germany, and other

destinations; and the barley chiefly to Germany. The iron-ore goes mainly to Great Britain and Germany.

(b) *Imports*

As in the case of exports, exact figures for the Ukraine imports cannot be given. In the long list of Russian imports, only three stand out conspicuously—raw cotton, wool, and machinery. Neither imported wool nor cotton is worked in the Ukraine, and the importation of agricultural machinery, though still considerable, is declining. As for commodities under the headings of colonial produce and manufactured goods, the share taken by the Ukraine cannot be estimated, but it is probable that more than half the amount imported through Ukraine ports is consumed beyond the Ukraine boundaries, as the adjacent parts of Russia have greater purchasing power. It may safely be said, however, that the imports of chemical manures, which are increasing rapidly, are largely destined for the Ukraine.

Germany is the principal source of Russia's imports, her share being usually 45–50 per cent. of their total value. Imports from Great Britain represent only 12–14 per cent. of the whole. The rest of the import trade is divided among many countries, none of which contributes as much as 10 per cent. of the total.

(c) *Customs and Tariffs*

The Russian tariff is on the whole highly protective, particularly in reference to manufactured articles. As far as possible the duties are levied on weight, only occasionally on value. The tariff contains 218 sections and many sub-classifications.

There is a short free list which includes many kinds of agricultural machinery, live cattle, horses, and cattle food consisting of by-products of manufacture. Certain fertilizing substances and chemicals necessary for tanning and other industries are imported under low duties.

The conventional tariff is modified in favour of various nations in respect of specified items according to the commercial treaties mentioned below.

(d) *Commercial Treaties*

The Ukraine having hitherto formed part of the Russian Empire, the commercial treaties of the Empire have had full force there. Up to the year 1893, notwithstanding any treaties existing, all European nations were on the same footing in relation to the Russian tariff. Since then the following special conventions as to tariffs have been concluded :

With France.—A treaty of 1893 provides for a reduction of Russian duties on 52 articles of French origin, in exchange for a reduced French tariff on naphtha and its products.

With Serbia.—A treaty of commerce and navigation, signed in 1893, agrees to a decrease of the Russian duty on Serbian fruits, in exchange for Serbian concessions on fish and mineral oils.

With Germany.—By a treaty of commerce signed in 1894, Russia lowered her duties in favour of Germany on 135 articles, in consideration of which she obtained most-favoured-nation treatment from Germany.

With Portugal.—A general convention of 1895 arranged that Russia should benefit by certain reductions of the Portuguese tariff, and that Portuguese cork and cork products should be allowed a 20 per cent. reduction of duty on entering Russia.

With Japan.—A general treaty, signed in 1895, placed Japan, in respect of her commercial relations with Russia, on a similar footing to that of European countries.

With Bulgaria.—In 1897 the Russian tariff on dried meat, eggs, and undressed leather was lowered in favour of Bulgaria, and attar of roses was admitted free of duty. In return, certain general concessions and most-favoured-nation treatment were accorded by Bulgaria to Russia.

Asia generally has peculiar commercial relations with Russia, the duties on both sides being as a rule low, while numerous arrangements for reciprocal concessions have been made, notably with Persia, the Turkish Empire, and China.

(D) FINANCE

(1) PUBLIC FINANCE

The Russian Imperial revenue is largely raised in indirect taxes. The budget for 1911 shows the following revenue figures:

| | <i>Roubles.</i> |
|--|-------------------|
| <i>Direct taxes</i> | 210,000,000 |
| <i>Indirect taxes :</i> | |
| Liquor | 42,000,000 |
| Tobacco | 69,000,000 |
| Sugar | 123,000,000 |
| Petroleum | 44,000,000 |
| Matches | 18,000,000 |
| Customs | 289,000,000 |
| | <hr/> 585,000,000 |
| <i>Duties :</i> | |
| Stamps, fees on transfers, harbour dues, railway dues | 169,000,000 |
| <i>Royalties :</i> | |
| Mines, mint, posts and telegraphs, and spirit monopoly | 849,000,000 |
| State property, including railways | 765,000,000 |
| Remainder | 122,000,000 |
| | <hr/> |
| Total | 2,700,000,000 |

The principal spending departments were the Ministries of Ways and Communications, War, and Finance, and the Public Debt service. These accounted for three-fourths of the expenditure.

In 1910 the revenue receipts from the respective Governments of the Ukraine were as follows :

| | <i>Roubles.</i> |
|--------------------------|-----------------|
| Volhynia | 24,400,000 |
| Podolia | 24,300,000 |
| Kiev | 128,900,000 |
| Chernigov | 18,400,000 |
| Poltava | 24,900,000 |
| Kharkov | 46,200,000 |
| Yekaterinoslav | 37,300,000 |
| Kherson | 80,400,000 |
| Taurida | 12,800,000 |
| Total | 397,600,000 |

The total revenue of European Russia for the same year was 1,522,800,000 roubles. In the period 1906–10 the revenue showed a good expansion in the Governments of Kiev, Yekaterinoslav, and Kherson. Elsewhere in the Ukraine it appeared to be stationary.

After the Imperial authorities, the *zemstvos* are the most important bodies authorized to raise taxes. Their revenue comes from taxes on land, houses, and factory buildings, and from licences for distilleries, 69 per cent. being derived from the land tax. Their expenses are (1) obligatory : local civil administration, upkeep of district roads, bridges, &c., and health service ; (2) facultative : public instruction and provision of medical attendance in rural districts. Their functions have gradually spread in a somewhat irregular manner, and vary very much according to the degree of energy shown by the committees. Some have embarked on commercial schemes, such as the installation of telephone systems or trade in agricultural machinery ; others perform only the minimum of their duties.

Five Governments of the Ukraine have a *zemstvo* organization, and their budgets of receipts and expenses, which appear to balance exactly, are as follows for the years 1906 and 1910 :

| <i>Government.</i> | 1906. <i>Roubles.</i> | 1910. <i>Roubles.</i> |
|----------------------|--------------------------|--------------------------|
| Yekaterinoslav . . . | 5,210,000 | 8,241,000 |
| Poltava . . . | 6,737,000 | 8,750,000 |
| Taurida . . . | 3,599,000 | 4,576,000 |
| Kharkov . . . | 5,753,000 | 9,168,000 |
| Kherson . . . | 3,808,000 | 5,542,000 |

Thirty-one towns in the Ukraine have municipal administrations, and can raise taxes and contract loans for purposes similar to those of the *zemstvo* budgets. A considerable debt has been incurred. The towns of Kiev, Kharkov, and Odessa have borrowed money for municipal purposes in foreign markets; of a total debt of 53,000,000 roubles, these three towns account for 35,000,000 roubles.

The *mirs* or local communes can also raise some taxes for purely local purposes. Obligatory taxes are levied for local communal administration, provision of granaries for storing food-stuffs, upkeep of local roads on peasant lands, and insurance against fire and inundations. Facultative powers of taxation are in the hands of the *mirs* for the building and maintenance of churches, schools, and hospitals, and other special local needs. There is a great deal of irregularity in the levying and administration of these taxes.

(2) BANKING

The banks of the Ukraine fall into several well-defined groups. In the first place come banks which are State or semi-State institutions. These are the Imperial State Bank, the Land Bank of the Nobility, the Peasants' Land Bank, and the State Savings Bank.

The Imperial State Bank is a Government institution with a wide sphere of activity. It controls the currency and note issue, being the only bank issuing notes. It undertakes general banking and bill broking, besides having close relations with the Treasury for revenue, loan, and other purposes. It makes large loans to private banks; up to 1910 the total amount was £189,000,000. It also advances money on merchandise, principally on

grain. The bank's net profits in 1904 were £1,200,000, and in 1910 £2,400,000. The capital is £5,000,000, and the reserve £500,000.

The Land Bank of the Nobility was founded after the liberation of the serfs to make advances on land, to finance the nobility involved in the transfer of part of their estates to the peasants, and to prevent the ruinous hypothecation of their land elsewhere.

The Peasants' Land Bank, founded in 1883, renders similar services to the peasants, advancing money on land to increase peasant holdings, to purchase agricultural machinery or live-stock, and for other objects.

The State Savings Banks carry out the function their title suggests, and also undertake certain minor insurance business. Branches can be opened in all towns and villages. The management is supervised by the Imperial State Bank. The banks were started in 1862 with 140,000 accounts and £850,000 in deposits, and in 1907 had 6,940,000 accounts and £128,000,000 in deposits.

Joint-stock land banks form the next group of important banks. There are four in the Ukraine, with resources as follows :

| <i>Bank.</i> | <i>Share Capital.</i> £ | <i>Reserves.</i> £ | <i>Bonds in circulation.</i> £ |
|------------------------------|--------------------------------|-----------------------|---------------------------------------|
| Kharkov | 1,170,000 | 200,000 | 12,000,000 |
| Poltava | 800,000 | 600,000 | 11,000,000 |
| Bessarabia-Taurida | 700,000 | 500,000 | 11,000,000 |
| Kiev | 600,000 | 400,000 | 9,500,000 |

These banks advance money on agricultural security on a business basis, and make considerable profits.

Mutual credit associations form another group, and are spread all over the country, their aggregate turn-over being very great. They vary very much in size and extent of operations, but in general their rate of interest is high.

Trading banks form the last great group. They are usually joint-stock concerns, and are carried on according to the German model, their foundation being

often due to German enterprise. They interest themselves in all sorts of industrial concerns, and even promote new ones. The following banks of this class have branches in the Ukraine: Discount Bank of Petrograd, Petrograd International Commercial Bank, Russian Bank for Foreign Trade, Union Bank, Volga-Kama Bank, Bank of Commerce and Industry, Azov-Don Bank, Russo-Asiatic Bank, and Commercial Bank of Siberia. One or two Moscow banking firms also have a few branches. The Russo-French Bank and the Russian and English Bank are joint-stock concerns founded specially to look after the Russian trade of the two countries in question. The *Crédit Lyonnais* appears to be the only purely foreign bank which has branches in the Ukraine.

(3) PRINCIPAL FIELDS OF INVESTMENT

The lack of capital in Russia, and the backward state of the industrial and commercial life of the Ukraine, offer innumerable openings to the foreign investor. The rivers should be canalized and systematically used for traffic; more railways and tramways are needed, and at least some water-power could be industrially used. Lastly, the iron and steel trades could be developed greatly. Unless, however, labour problems can be simplified, and the quality of native labour much improved, a great risk will always attach to the investment of capital in the Ukraine.

(E) GENERAL REMARKS

A Ukraine proverb runs: 'The harvest is the Almighty!' This gives the clue to the whole economic situation of the country. Great as are the industries in the Donets and Krivoy-Rog regions, these are a foreign growth, largely dependent on capital and management from abroad, and worked mainly by immigrants from Great Russia. Agricultural problems, therefore, are the chief concern of those interested to see the Ukraine prosperous. The task before them is

to pilot agriculture from its present phase to another with the minimum of friction and waste of effort.

The Ukraine has long emerged from the first phase of agriculture—that of purely extensive cultivation of a fertile belt, where unoccupied lands are sown with successive cereal crops as long as they yield a sufficient return, and afterwards deserted. The second phase, during which a slightly more intensive system is in vogue, but more is continuously taken from the soil than is returned to it, should now be near its end. The third, which should soon begin, is that of intensive mixed farming with wide rotations and frequent fertilization by animal manure produced on the farm and chemical manure brought from industrial districts.

At present agriculture in the Ukraine is stationary, pending the move towards the last stage indicated. The area under crops is increasing, but the average crop per acre is stationary or decreasing. The population is growing, but it would appear that the wealth per head is diminishing. On the whole the country is not now so rich as it was formerly. Its soil is partially exhausted; its live-stock shows a tendency to decrease; other natural sources of wealth, such as the forests, have been trenched upon and no replacement has been attempted. Its large cereal exports are more a sign of necessity than of surplus, the population often subsisting on inferior bread-stuffs.

The problems presented for solution before the transit to the third stage of agriculture can be effected and economic prosperity assured, are those of ownership, methods of farming and supply of labour—whether holdings shall be small or large farms prevail, and whether the land shall be cultivated by peasant proprietors or wage-paid labour, or (as at present) there shall be a mixture of both systems. The country is inhabited by Little Russians, who seem designed by nature to be peasants, and do not appear likely to engage in any industry other than agriculture, except on a small scale and of necessity. If they can live by the land, and if they are suitably educated and aided

by the State, they should become a prosperous peasant people.

The mining and manufacturing industries are of recent development in the Ukraine, and, in view of the excellent coal and iron in the country, are destined to flourish. But, as the native Ukrainian does not take kindly to any but an agricultural life, these industries are likely to remain in the hands of the foreigner and the immigrant from Great Russia.

Although the Ukraine has a seaboard and important overseas trade, it does not seem likely to produce a maritime population; and navigation and seafaring will probably continue to be left to peoples better suited to them.

For commerce the activities of the huge Jewish population can be relied upon; but there remains the task of solving the acute social problems arising from its existence side by side with a peasantry inclined to thriftlessness, in a backward state of education, and influenced by religious bigotry.

The question of capital is a paramount one. It can only be said that, if the country is to progress, capital must be found. Whether such capital will be brought in from abroad in the first instance, or produced from surplus profits at home, only the future can show.

APPENDIX

I

NUMBER OF THE UKRAINIANS¹

ACCORDING to the census of 1897, there were 23,430,000 Ukrainians in the nine Ukrainian Governments of Russia. The number accepted by the Russian Academy of Science in their report relating to the Ukrainian language is 22,700,000 (also based on the census of 1897). Prof. Hrushevski in his popular history of the Ukraine in Ukrainian ('How the Ukrainian People live'), published in 1915, says that there are altogether some 30,000,000 Ukrainians, of whom 25,000,000 are—or were—Russian subjects. According to Dr. Paul Ostwald (*Die Ukraine und die Ukrainische Bewegung*, 1916, p. 8), who takes his statistics from the *Revue Ukrainienne*, August, 1915, there are

| | | |
|------------|---------------|------------------|
| 4,220,000 | Ukrainians in | Austria-Hungary. |
| 29,435,000 | „ „ | Russia. |
| 760,000 | „ „ | America. |
| <hr/> | | |
| 34,415,000 | | |

This means that out of every thirty-eight Ukrainians, thirty are Russian. The two following tables give an idea of the distribution of Ukrainians in the Ukrainian Governments of Russia :

| 1897. ² | | | | 1910. ³ | | | |
|--------------------|---------------------|---------------------|--|---------------------|---------------------|--|--|
| | <i>Per cent. of</i> | <i>No. of</i> | | <i>Per cent. of</i> | <i>No. of</i> | | |
| | <i>Ukrainians.</i> | <i>Inhabitants.</i> | | <i>Ukrainians.</i> | <i>Inhabitants.</i> | | |
| Volhynia . | 70 | 2,989,000 | | 70 | 3,850,000 | | |
| Podolia . . | 81 | 3,018,000 | | 81 | 3,030,000 | | |
| Kiev . . . | 80 | 3,559,000 | | 79 | 4,570,000 | | |
| Chernigov . | 66 | 2,298,000 | | 86 | 2,980,000 | | |
| Poltava . . | 93 | 2,778,000 | | 95 | 3,580,000 | | |
| Kharkov . . | 80 | 2,492,000 | | 70 | 3,250,000 | | |
| Yekaterinoslav | 69 | 2,114,000 | | 69 | 3,000,000 | | |
| Kherson . . | 54 | 2,734,000 | | 54 | 3,450,000 | | |
| Taurida . . | 41 | 1,448,000 | | 42 | 1,880,000 | | |

¹ See also p. 12.² Shchegolev, p. 364.³ Rudnyčkyj, p. 91.

II

**TEXT OF THE TREATY OF BREST-LITOVSK, BETWEEN
THE UKRAINE AND THE CENTRAL POWERS,
FEBRUARY 9, 1918**

A TREATY of peace between Germany, Austria-Hungary, Bulgaria and Turkey on the one part, and the Ukrainian People's Republic on the other part. The Ukraine people having, in the course of the present world-war, declared itself independent and expressed the wish to restore peace between the Ukrainian People's Republic and the Powers at war with Russia, the Governments of Germany, Austria-Hungary, Bulgaria and Turkey have resolved to agree on a peace treaty with the Government of the Ukrainian People's Republic. They thereby desire to take the first step towards a lasting world-peace, honourable for all parties, which shall not only put an end to the horrors of war, but shall also lead to the restoration of friendly relations between the peoples in the political, legal, economic and intellectual realms. To this end the plenipotentiaries of the above-mentioned Governments, namely, for the Imperial German Government, the Foreign Secretary, Baron von Kühlmann; for the joint Austro-Hungarian Government, the Foreign Minister, Count Czernin; for the Bulgarian Government, the Premier, Mr. Radoslavov, and the envoys, Mr. Andrea Toshev, Mr. Ivan Staiia Stoyanovitch, the military plenipotentiary, Colonel Peter Gantchev, and Doctor Theodor Anastassov; for the Imperial Ottoman Government, the Grand Vizier, Talaat Pasha, the Foreign Minister, Nessimi Bey, Hakki Pasha, and General Izzet Pasha; for the Government of the Ukrainian People's Republic, Messrs. Alexander Siewrjuk, Mykola Ljubynskyj, and Mykola Lewytskyj, members of the Central Rada, have met together at Brest-Litovsk for the inauguration of peace negotiations, and, after submitting their credentials, which were found to be in good and proper form, they have reached agreement on the following conditions:

ARTICLE I.—Germany, Austria-Hungary, Bulgaria, and Turkey on the one hand, and the Ukrainian People's Republic on the other hand, declare that the state of war between them is at an end. The contracting parties are resolved henceforth to live in peace and friendship with one another.

ARTICLE II.—(a) Between Austria-Hungary on the one hand, and the Ukrainian People's Republic on the other hand, in so far as these two Powers border upon one another, those frontiers will exist which existed before the outbreak of the

present war between the Austro-Hungarian Monarchy and Russia ; (b) farther north, the frontier of the Ukrainian People's Republic commencing at Tarnegrad, will, in general, follow the line Bilgoraj, Szozebrzszyn, Krasnostas, Pugaszow, Radin, Meshireyschie, Sarnaki, Melnik, Wyskolitowsk, Kamenietzlitowsk, Pruschany, Wydonovskojesce. These frontiers will be fixed in detail by a mixed commission according to the ethnographical conditions and with regard to the desires of the population ; (c) should the Ukrainian People's Republic still have common frontiers with another of the Powers of the Quadruple Alliance special agreements will be made thereupon.

ARTICLE III.—The evacuation of occupied territories will begin immediately after the ratification of the present peace treaty. The manner of carrying out the evacuation and the transfer of the evacuated territories will be determined by plenipotentiaries of the interested parties.

ARTICLE IV.—Diplomatic and consular relations between the contracting parties will be entered upon immediately after the ratification of the peace treaty. The widest possible admittance of the respective parties' consuls is to be reserved for special agreements.

ARTICLE V.—The contracting parties mutually renounce reimbursement of their war costs (that is to say the State expenditure for carrying on the war) as well as indemnification for war damages (that is to say those damages which have been suffered by them and their subjects in the war areas through military measures, including all requisitions made in the enemy's country).

ARTICLE VI.—The respective prisoners of war will be permitted to return home, in so far as they do not desire, with the approval of the State concerned, to remain in its territories or proceed to another country. The regulation of questions connected herewith will follow by means of the separate treaties provided for in Article VIII.

(ARTICLE VII is a long clause covering the economic agreements made between the Ukraine and the four enemy Powers. *Inter alia* it provides for 'a reciprocal exchange, until July 31 of the current year, of the surplus of the most important agricultural and industrial products . . . for the purpose of meeting current requirements', and it revives the Russo-German Commercial Treaty of 1894-1904.)

ARTICLE VIII.—The restoration of public and private legal relations (*Rechtsbeziehungen*), the exchange of prisoners of war and interned civilians, the amnesty question, as well as the question of the treatment of merchantmen in the enemy's

hands, will be regulated in the separate treaties with the Ukrainian People's Republic, which form an essential part of the present peace treaty, and, so far as is practicable, will enter into force simultaneously therewith.

ARTICLE IX.—The agreements made in this treaty constitute an indivisible whole.

ARTICLE X.—For the interpretation of this treaty the German and Ukrainian text is authoritative for the relations between Germany and the Ukraine; the German, Hungarian, and Ukrainian text for the relations between Turkey and the Ukraine.

Final prescription. The present peace treaty will be ratified. The ratified documents shall be exchanged as soon as possible. So far as nothing therein prescribes otherwise, the peace treaty comes into force on its ratification. (Here follow the signatures.)

A supplementary treaty of twenty-eight articles was signed between Germany and the Ukraine on the same day. It deals with the resumption of consular relations, the revival of 'treaties, arrangements and agreements which were in force between Germany and Russia before the war', exchange of prisoners, compensation for damage, &c. (*The New Europe*, February 28, 1918.)

III

THE GERMAN COLONISTS IN S. RUSSIA (from F. Stach, *Survey of the History of the Colonists in S. Russia and their Present Life*. Moscow, 1916.)

REALIZING that in the southern territories acquired by Russia in the eighteenth century only colonists with a certain amount of culture could introduce a settled life and develop the resources of the country, Catherine the Great published a manifesto on December 4, 1762, inviting foreign colonists. As a result, 102 colonies were established on the Lower Volga in the Saratov and Samara Governments, 6 in Chernigov, 1 in Voronezh, 2 in Lifland, and 6 in the Petrograd Government. A further manifesto followed on July 22, 1763, enlarging the privileges of the colonists, which were very considerable.

This manifesto was the basis of the colonies of Russia. On March 19, 1764, a supplementary act was issued granting 30 desyatines of land to each family and prescribing the method of settling and rights of inheritance. The land was to pass to youngest son; this measure would force the father to teach

elder sons various industries. Another manifesto of July 19, 1785, promised freedom from all taxation for 6 years.

The first party of settlers from Danzig, many of whom were Mennonite sectaries, arrived at Kremenchug in 1787. On September 6, 1800, Paul I proclaimed special privileges to the Mennonites of Novorossiia (Governments of Kherson, Taurida, Yekaterinoslav, and the Don Cossacks' Territory); 65 desyatines were granted to each family, and it was promised that they would never be called up for military and other duties against their wish. Further regulations concerning the colonists appeared in 1804.

In the reign of Alexander I, in 1818, a new Care Committee for South-Russian Colonies (Governments of Kherson, Yekaterinoslav, Taurida, and Bessarabia) was established in Yekaterinoslav 1818-22; it migrated to Kishinev a little later. On July 1, 1833, the Committee was limited in power and transferred to Odessa. It existed till July 4, 1871, when it was cancelled and all Russian colonists were placed under the general law. In 1874 they, together with the others, were made amenable to conscription.

Relations between the colonists and the Russians.—Before the Crimean War, and even down to 1860, the Russian towns had very little to do with the colonists, except in the case of those colonies which were situated in the neighbourhood of Odessa, Yekaterinoslav, Nikolaev, Simferopol, Chernigov, Voronezh, Samara, Saratov, and Petrograd. At first intercourse arose from commercial relations. But the influence of colonists on the Nogai was much greater after about 1809 and 1835 when the Nogai received land for permanent settlements. T. Kornis, a colonist of Orlovo, was responsible for helping some 17,000 Nogai to settle down. When the *dukhobors* of Tambov and Voronezh migrated to the neighbourhood of the Mennonites, they were greatly helped by them.

The Ministry of Public Property published in 1846 a report showing that at that time the colonists occupied 1,424,619 desyatines of land (1,309,945 arable). Their number was 95,342 men and 88,293 women, and they were chiefly engaged in agriculture, then cattle-breeding, butter-making, fruit cultivation, tobacco plantation, vegetable-growing, silk industry, wine plantation, and various applied industries.

In agriculture, so early as 1870, they used harvest machines, and in 1905 steam and electrical agricultural machines. In the sixties the Russian, Serbian, and Bulgarian colonists began to imitate the Germans, so that now their methods in agriculture are very much alike. During the last 50 years many colonists bought large private landed estates, especially in the Dneprovsk

district; but for the last 25 years there has been a tendency to sell all land to the Russian colonists and migrate to the towns.

The Russian language was introduced in the schools of the colonists in 1860; and in 1871 their schools were taken over by the Ministry of Education.

The German colonies are chiefly found in the Governments of Taurida, Volhynia, and Yekaterinoslav.

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MAPS

The Ukraine is covered by eight sheets (Bucarest, L. 35; Odessa, L. 36; Rostov, L. 37; Krakau, M. 34; Jitomir, M. 35; Kiev, M. 36; Kharkov, M. 37; Smolensk, N. 36) of the International Map (G.S.G.S. No. 2758) published by the War Office on the scale of 1 : 1,000,000.

A special map of the Ukraine, on the scale of 1 : 4,500,000, has been issued by George Philip & Son (London Geogr. Institute).

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THE DON
AND
VOLGA BASINS

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I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

THE district of the Don and Volga basins includes the Governments of Astrakhan, Kazan, Kostroma, Nijni - Novgorod, Samara, Saratov, Simbirsk, Vladimir, Voronezh, and Yaroslav, together with the Don Territory.

The following are the areas of the various Governments:—

| Great Russia— | | | | Area (sq. m.). |
|----------------|-----|-----|-----|----------------|
| Kostroma | ... | ... | ... | 32,480 |
| Nijni-Novgorod | ... | ... | ... | 19,792 |
| Vladimir | ... | ... | ... | 18,815 |
| Voronezh | ... | ... | ... | 25,435 |
| Yaroslav | ... | ... | ... | 13,437 |
| South Russia— | | | | |
| Don Territory | ... | ... | ... | 63,725 |
| East Russia— | | | | |
| Astrakhan | ... | ... | ... | 91,327 |
| Kazan | ... | ... | ... | 24,601 |
| Samara | ... | ... | ... | 58,302 |
| Saratov | ... | ... | ... | 32,614 |
| Simbirsk | ... | ... | ... | 19,110 |
| Total | ... | ... | ... | 399,638 |

The region under consideration is bounded on the north by the Government of Vologda; on the east by the Governments of Vyatka, Ufa, and Orenburg, the territory of the Ural Cossacks and the Caspian; on the south by the Governments of Stavropol and Kuban and the Sea of Azov; on the west by the

Governments of Yekaterinoslav, Kharkov, Kursk, Orel, Tambov, Pensa, Ryazan, Moscow, and Tver.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

The surface of the country comprised in the Don and Volga Governments is remarkably uniform, and is composed of a flat or gently undulating plain which slopes in a south-easterly direction towards the Caspian Sea. There are a few ranges of hills, the chief being the Ergeni Hills, a ridge 200 miles in length, which separates the lower course of the Volga from the basin of the Don, and rises in places to a height of 630 ft.

Parts of the Governments of Saratov, Voronezh, Kazan, Samara, and Simbirsk, and of the Don Territory, fall within the "black earth" region; the soil is consequently of a high degree of fertility, and produces heavy crops. There is a fair proportion of marsh land in certain districts, e.g., the southern part of the Government of Nijni-Novgorod; and the area which is covered by forest is considerable. (A full description of the forests will be found on p. 70.) As a whole, however, agricultural and pasture land predominate throughout most of the Don and Volga Governments, and there are strips of fertile alluvial soil along the courses of all the rivers.

The Government of Astrakhan, beyond the Ergeni Hills, is of a very different character, consisting chiefly of salt steppes broken by occasional groups of sandhills. There are some small salt lakes as the Caspian is approached, and along the course of the Volga there is much marshy country, due to the changing course and continual floods of that river.

Coast

The extent of the coast-line is small, consisting of a stretch bordering on the Sea of Azov, at the mouth of

the Don, which contains the important port of Taganrog; and another bordering on the Caspian, northward from the mouth of the Kuma. The latter is largely occupied by the delta of the Volga, which is divided by the arms of the river into many islands, some of considerable size. The whole of the Caspian shore is low and sandy, fringed with countless islands, and having a background of sandhills. The most considerable port is Astrakhan.

River System

The River *Don* (the Tanais of the ancients; the Tuna or Duna of the present-day Tatars) rises in Lake Ivan, in the Government of Tula, and flows at first southward and then south-east, approaching the bend of the Volga at Tsaritsyn. It then turns south-west and flows through a delta into the Sea of Azov. The total length of the river is 1,325 miles, and its basin waters an area of 166,000 square miles.

The Don flows through the Governments of Tula, Ryazan, Tambov, and Voronezh, and the territory of the Don Cossacks. Its most important tributaries are, on the left bank, the Voronezh, Bitrug, Khoper, Medvieditsa, Ilowla, Sal, and Manych; and on the right bank, the Chir, the Sosna, and the navigable Donets. Of the arms of the delta, the most important are the Kalancha and the Kuturma.

The right-hand banks of the Don are hilly, but the left flat and covered with meadows; this being the case also with most of the tributaries. In its upper course the river is connected with the system of the Volga by the canal of Yepisan, which leads to the Upa, a tributary of the Oka, which in its turn flows into the Volga. The economic value of the Don is greatly diminished by the slight fall and the gradual silting up of the river. The period of open navigation on the lower course is about 260 days, as the river is usually frozen for 100 to 110 days in winter.

The *Volga* rises in the Valdai Hills, in the Government of Tver. It flows through several small lakes, the last being the Volga lake. Its upper course is continued between high banks southward to Subzov, at that point entering the undulating plain, which it does not leave until it reaches Kamishin.

In this section it first flows eastward through the Governments of Tver, Yaroslav, Kostroma, Nijni-Novgorod, and Kazan. From Kazan it flows south past the towns of Simbirsk, Stavropol (below which it makes a sharp bend), Samara, Sysran, Kvalinsk, Volsk, and Saratov. The river turns sharply to the south-east at Tsaritsyn and divides into branches, the most northerly of which is the Akhtuba. In its lower course the Volga forms a maze of sandy and marshy islets, covered with weeds and grass, and through the saline ground of the steppes it passes below Astrakhan into a broad delta, entering the Caspian Sea by eight principal and about twenty smaller mouths. The principal tributaries are, on the right bank, the Oka, the Sura, and the Swiaga; and on the left bank, the Mologa, Kostroma, Unsha, Vetluga, Kama, and Samara. The total length of the river is 2,325 miles, of which 2,240 miles are navigable—2,040 for steamers—and the total area of the basin is 563,300 square miles. The fall of the river is only 890 ft. from source to mouth.

The so-called *satoni sawodi* are short branches, or creeks, connected with the main stream by short, narrow openings, and are of great importance as landing-places.

(3) CLIMATE

The climate in the Don and Volga basins is continental in character. In winter the prevailing winds in Central Russia are from the south-west, which make the climate somewhat milder than in Southern Russia, where northerly and easterly winds predominate at that season. Terrible tempests are common from October to March, especially on the

southern steppes. In summer in Central and Southern Russia the usual winds are from the north-west; and, towards Eastern Russia, from the north. The greatest extremes of temperature are found in the south-east of the provinces, where the long, hot summer resembles that of the Mediterranean coast and the winters are like those of Lapland. The greatest variation of temperature is found in the Caspian depression, where there is a difference of 63° F. between the mean summer and winter temperatures; in Central Russia the difference is 54° F.

The average yearly rainfall varies from 16 to 28 in., and the greatest quantity falls in summer. In Central Russia there is, at all times of the year, an adequate supply of moisture; in winter the ground lies for months under a protective covering of snow. In Southern Russia there is less snow, and owing to the violent hurricanes (*burane*) the deposit is not uniform, which results in the deep penetration of frost into the soil and inadequate moisture when the snow melts. In this area the maximum quantity of rain falls in spring and early summer in heavy rain-storms; in late summer there is little rain and a high temperature, so that the soil is parched.

TABLE OF TEMPERATURE AND RAINFALL.

| Town. | Average Temp. Fahr. | | | Average Rainfall. Inches. | |
|-----------------|---------------------|------|-------|------------------------------|---------------|
| | Year. | Jan. | July. | Year. | Nov.- Mar. |
| Astrakhan | 49° | 10° | 77·9 | 5·7 | 1·5 |
| Kazan | 37·2 | 7 | 67·3 | 18 | 5·4 |
| Kostroma | 37·3 | 9·4 | 66·3 | 19·4 | 5·2 |
| Tsaritsyn | 44·4 | 13·4 | 74·6 | — | — |
| Vladimir | 38 | 16 | 66·5 | — | — |
| | | | | | May- Nov. |
| Simbirsk | | | | 18·9 | 10·6 |
| Voronezh | | | | 22·0 | 13·9 |

(4) SANITARY CONDITIONS

The conditions of public health differ in no respect from those of the other provinces of Russia. Bad sanitation and unhygienic conditions prevail, and there is great scarcity of medical aid. The death-rate is very high, and there is a considerable infant mortality.

(5) POPULATION

Distribution

The total population of the provinces under consideration was 29,063,500 on January 1, 1915. The distribution was as follows:—

Great Russia—

| | | | |
|----------------|-----|-----|-----------|
| Kostroma | ... | ... | 1,855,000 |
| Nijni-Novgorod | ... | ... | 2,081,200 |
| Vladimir | ... | ... | 2,225,900 |
| Voronezh | ... | ... | 3,687,000 |
| Yaroslav | ... | ... | 1,416,700 |

South Russia—

| | | | |
|---------------|-----|-----|-----------|
| Don Territory | ... | ... | 4,013,400 |
|---------------|-----|-----|-----------|

East Russia—

| | | | |
|-----------|-----|-----|-----------|
| Astrakhan | ... | ... | 1,427,500 |
| Kazan | ... | ... | 2,900,400 |
| Samara | ... | ... | 3,899,800 |
| Saratov | ... | ... | 3,432,100 |
| Simbirsk | ... | ... | 2,124,500 |

The population is densest in the Governments of Kazan, Simbirsk, Nijni-Novgorod, and Vladimir, which lie within the industrial region of Central Russia. The most thinly populated regions are the Don Territory and the Government of Astrakhan. (See also p. 32. For racial composition, see p. 25.)

Towns

The chief towns and their populations (1913) are the following:—

Astrakhan (163,800), a large seaport with a very mixed population; Kazan (195,300), the most important town on the middle Volga; Kostroma (73,820); Nijni-Novgorod (112,300), a very important commercial centre; Rostov-on-Don (204,725); Samara (144,000); Saratov (235,500); Simbirsk (70,500); Taganrog (68,091); Vladimir (43,552); Voronezh (94,800); Yaroslav (120,400).

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 5th, 6th, and 7th centuries. The Lower Volga invaded by Bulgars, Avars, and Khazars.
- 10th century. Flourishing of the Black Bulgarian and Khazar empires. Slavonic colonization of the Upper Volga.
- 922 The Black Bulgarians converted to Mohammedanism.
- 11th and 12th centuries. Establishment of Kumans on the lower Don and Dnieper.
- 13th century. The Tatar invasion; establishment of the White and Golden Hordes.
- 1220 Foundation of Nijni-Novgorod.
- 1224 Tatar victory of Kalka.
- 1380 Russian victory over Tatars at Kulikovo.
- 1437 Establishment of the Khanate of Kazan.
- 1480 Power passes definitely from Tatars to Russians.
- 1552 Kazan taken by the Muscovites.
- 1557 Russian conquest of Astrakhan.
- 17th century. "Time of Troubles" and military expansion under the Romanoffs.
- 1623 Subjugation of the Don Cossacks.
- 1670 Rebellion of Stenko Razin.
- 1690 Azov taken by Peter the Great.
- 1705-28; 1735-55 Bashkir revolts.
- 1773-5 Rebellion of Pugacheff.
- 1774 Treaty of Kuchuk Kainarji.
- 1784 Cession of the Crimea to Russia.
- 1792 Treaty of Yassy.
- 1905 Russian Mohammedan Party in Duma.
- 1917 All-Russian Moslem conferences at Moscow and Kazan. Tatar republic established at Kazan.

(A) THE VOLGA BASIN

(1) *Early Middle Ages*

THE Volga, the great central river of Russia, in its 2,300-mile course from the high ground east of Petrograd to the Caspian, passes through various regions—the upper or forest region, the middle or forest-steppe

region, and the lower or steppe region. It is natural, therefore, that its history cannot be treated as one, but follows, more or less, the divisions indicated. The upper region, i.e. as far as Nijni-Novgorod, was originally inhabited by the Finnic tribes, the Mer, Muron, Mordva, Vyes, and Meshchera, as the present place-names indicate. The Eastern Slavs colonized this land by two routes, along the river Oka from Kiev, and along the river Volga from Novgorod. The first Slavonic colonist must have arrived soon after the foundation of Novgorod and Kiev. From the tenth century onward colonization was more regular; but communication between Kiev and the Oka was more difficult than that between Novgorod and the Upper Volga. The chief stream of immigrants from Kiev-Russ only came after the Turkic Kumans had sacked Kiev in 1203. Yet it is the princes of Kiev who founded the first towns. Yaroslav founded Yaroslav; Vladimir Monomakh founded Vladimir. After the death of Yaroslav the Great, the upper Volga country passed to his fifth son, Vsevolod of Pereyasavl; and hence that part of the upper Volga between Pereyasavl and Yaroslav must have been included in the dominions of the Grand Duke of Kiev. Vladimir Monomakh was the last Kiev prince who exercised power over the Volga princes. After his death Andrei Bogolubski of Suzdal sacked Kiev in 1169 and assumed the title of Grand Duke. Thus it appears that political power had already passed from Kiev to the upper Volga before the Tatar invasion.

The Novgorod chronicle speaks of the expansion of the Russ of Novgorod on the upper Volga, Vyatka and northern Dvina so early as the eleventh century. In 1174 the colony of Vyatka on the river Vyatka was established. But this expansion did not continue farther along the Volga than the point where it is joined by the Oka, and where the town of Nijni-Novgorod was founded in 1220, just before the Tatar invasions. Russian (Slav) infusion before the Tatar invasion was limited to trade relations and the military

control of the Russian princes, centring in the Oka region in the principality of Ryazan, and (in the Volga region) in the principality of Suzdal. It was only under the Tatar domination that a thorough assimilation of the Slavo-Finnic elements took place on the upper Volga, when also the military and political interests of the separate principalities became amalgamated.

The history of the middle Volga is involved with that of the lower, though there were always two centres of power, one at the junction of the Kama with the Volga, and the other at the mouth of the Volga. The Bulgars appeared on the lower Volga about the fifth century A.D., and the Avars about the sixth. Under the pressure of the Khazars, who appeared there about the seventh century, the Avars and the Bulgars moved towards the middle Volga. In the tenth century two powerful states were in existence—the Black Bulgarian empire and that of the Khazars. The former occupied the present Governments of Kazan, Simbirsk, Samara, and part of Saratov, with its capital Bolgar, south of the junction of the Kama and the Volga. It was composed of Finno-Turkic elements, and was much influenced by the old Iranian culture from central Asia. It was an agricultural and commercial state which in 922, during the reign of the Tsar Almas, was converted to Mohammedanism by Arabian missionaries. Meanwhile, on the lower Volga, the Khazar empire was established with its centre at the mouth of the river. Relations between the Khazars and the Bulgars were often unfriendly, but on the whole they helped each other, and the Bulgar trade passed through the Khazar lands. West of the Khazars, on the lower Don and the Dnieper, another Turkic nomad tribe of Kumans (Polovtsi) established itself in the latter part of the eleventh and the twelfth centuries, pushing to the west the Turkic Pyecheneg. At the beginning of the thirteenth century, the Kumans even sacked Kiev, after which they made the chief centre of their power on the lower Don.

(2) The Tatar Invasion

A new invasion of the Turks under Mongol leaders, known as the Tatar invasion, began early in the thirteenth century, when one of Jenghiz Khan's chiefs, Subudai, passed from Persia through the Caucasus, and subdued the Kumans (Polovtsi). These in 1224, together with the Russian princes, tried in vain to resist the Tatars at the battle of Kalka. A little later, after the death of Jenghiz Khan (1227), the Tatars returned, and in 1236 subdued Black Bulgaria, and then the Finnic nations, who were dependants of Black Bulgaria. The Russian principalities of the upper Volga, Ryazan, Vladimir, Moscow (in 1292), Pereyasavl and Tver, were successively conquered.

The Tatar domination of the middle and lower Volga was more thorough than that of the lands on the upper Volga. After the death of Yuji, the son of Jenghiz Khan, the Tatars' Western Empire was divided into the Eastern, or White, and Western, or Golden, Horde. The empire of the Golden Horde was organized on the middle and lower Volga as well as on the lower Don and Dnieper and in the Crimea; and the people of the upper Volga were its vassals. Its centre of power was established at Sarai on the lower Volga; but, though the invasion of Jenghiz Khan was conducted by Mongol pagan chiefs, the Mongols, when once settled on the Volga, accepted the Turkic language and soon afterwards became Mohammedans. Subsequently the Volga Tatars adopted the old Bulgarian civilization, especially on the middle Volga. Those Mongols who did not come under the influence of Bulgarian culture, and continued to be nomads and cattle-breeders, organized themselves at the end of the thirteenth century as an independent state between the Ural, the Volga and the Kama under the chieftainship of Nogai. A new influx of Turkic blood under Tamerlane at the end of the fourteenth century diluted the power of the Golden Horde, though it continued to exist till the end of the fifteenth century. In 1437 Ulu

Mahmed, brother of the Khan of the Golden Horde, left Sarai and went north of the junction of the Kama and the Volga, where he set up a new centre, Kazan. This new Khanate was the successor of Black Bulgaria in trade, industry and Mohammedan culture, and held many native Finnic tribes in tributary dependence.

The remaining bands of the Golden Horde formed themselves into two Khanates—the Crimea and Astrakhan. With the growth of the power of the Moscow Dukes, a struggle between Mohammedan Kazan and the new Russian Orthodox Christian centre was inevitable. The Moscow Dukes took advantage of the war between Kazan and the Khanates of Sarai, the Crimea and Nogai, and of the discontent among the Finnic tribes, which was due to heavy taxation. The fall of Kazan in 1552 changed the policy of Moscow from a defensive to an offensive policy. Although the actual end of the Mongol-Turkic regime came in 1480, it was only after 1552 that the power of the Turks began to be superseded by that of Moscow.

(3) *Rise of Russia*

While these events were taking place on the middle and lower Volga, the Russian principalities on the upper Volga were governed by their own princes, who paid tribute to the Khan of the Golden Horde in Sarai, and were occasionally summoned also before the Grand Khan in Asia. Tatar control was ostensibly limited to the direction of their foreign policy, but the influence of the Asiatic regime penetrated deeply into the organization of the rising Moscow Duchy, and annihilated all the early almost republican influences of Novgorod and Kiev. The first prince who raised Moscow to the grand principedom over the Volga principalities (of which the chief had been Vladimir), and who resumed the colonization of Kama (first begun by the Novgorodians), was Ivan Kalita (1328-41). From that time Moscow grew, expanding eastwards and consolidating her other Russian prin-

cipalities. Kalita increased the importance of Moscow by obtaining from the Golden Horde a mandate to collect taxes for the Khan from other Russian princes; and, as soon as Moscow became a financial centre, he made it also head of the Church, by transferring there the Metropolitanate from Vladimir. Finally, he assumed, with the Khan's permission, the title of Grand Duke. Soon afterwards, the Grand Duke Dmitri "of the Don," with the support of other princes, challenged the Khanate victoriously at the battle of Kulikovo in 1380, though it was not until 1480, during the reign of Ivan III, the first Tsar of Moscow, that the Tatar control came to an end. About the same time Ivan began to subdue by conquest or diplomacy the principalities of the Volga. In 1471, Novgorod was overcome, and in the next year the Finnic Perm. Basil III incorporated the other Volga principalities, and gave to the Moscow Tsars the military powers which they were afterwards to use against their Turko Mongol rivals.

The colonization of the middle Volga by the Slavs had hardly begun in this period. There were only a few towns in existence—Kurmysh on the Sura, built in 1372, and Svyashk, built in 1550. Basil III, to destroy the commercial power of Kazan, established a rival fair at Makariev, which was afterwards moved to Nijni-Novgorod; and the people of the upper Volga began to migrate towards the middle Volga. The line of forts (*cherta*) which the Russians established as a protection against the raids of the Turkic nomads ran along the river Oka from Nijni-Novgorod to Tula at the beginning of the sixteenth century.

(4) *Russian Expansion*

The latter half of the sixteenth century saw a rapid Russian expansion over the middle and lower Volga and thence to the west towards the Don and to the east towards the Ob. The middle Volga and the Kama underwent a rapid russification, chiefly by means of

commercial activities. It was at that time that the colony of the merchant Stroganoffs was organized on the upper Kama—a kind of autonomous commercial kingdom, the militia of which took an active part in the conquest of Siberian lands under the Cossack Yermak. The fall of Kazan was of enormous importance, since it undermined the position of Mohammedan culture and civilization and destroyed the centre of unity of all the non-Russian elements. Thence the Russians spread to the Finnic state of Bashkiria, on the river Byela, and there built the Russian towns of Ufa (1574) and Menzelinsk (1586).

The Russians next met with resistance from the southern centre of Turkish power, Astrakhan; and, though Astrakhan was conquered in 1557, and soon afterwards the first Russian towns, Samara (1586), Tsaritsyn (1589), and Saratov (1590), appeared on Astrakhan territory, the absorption of the lower Volga was not effected as easily as that of the middle Volga. For some hundred years the Moscow princes had to fight the Khanate of the Crimea, the Nogai, Kalmuck and Kirghis, and the Cossack communities which supported these national risings, before the lower Volga could finally be called Russian. In fact, it was only in the second half of the eighteenth century that Catherine the Great finally europeanised the steppes of the lower Volga by inviting thither German and other colonists as well as Russian sectaries.

Four years after the fall of Kazan, the Mohammedans of the town, who had suffered much persecution, rose against the Orthodox rule, and were consequently banished from the town of Kazan, in the neighbourhood of which they formed a colony called Staraya-Tatarskaya-Sloboda. In the latter part of the sixteenth century, a second line of forts was built from Alatyr on the Sura to Orel in the west and Novgorod-Syevyorsk in the south; and at the end of the sixteenth century, a third line as far south as Voronezh and Kursk, which means, more or less, the middle course of the Don. Notwithstanding opposition from the con-

quered Tatars and Finns, as well as from their supporters, the Crimean Tatars, the Russian incorporation of the Volga country as far as the Ural was successful until 1598, when, with the death of the Tsar Feodor I, which brought his dynasty to an end, the "Time of Troubles" began.

(5) *The "Time of Troubles"*

The Russian expansion eastward now ceased for about twenty years. Though the events of this period are usually regarded as a social revolution of the *boyars* (upper classes) against the Tsar's autocracy, and of the lower classes against the *boyars*, they were to a great extent a national rising of the lower classes, whether Turkic or Finnic, aborigines or Cossacks, against the Slavonic invaders who formed the upper classes. The Mohammedan faith began to assert itself in Kazan. Some of the Finnic tribes regained their independence; and the lower Volga, as well as the Trans-Volga, was hardly controlled at all by the central government.

(6) *Russian Expansion Renewed*

During the reign of the Tsar Michael, the first of the Romanoffs, military expansion began again; and the line of forts dividing Moscow from the southern steppe, began in 1636 to be moved southwards. Russian penetration advanced rapidly during the reign of Michael's successor, Alexis. By the middle of the 17th century, three new lines of forts had been built, being prolongations one of another: the Belgorod line, from Akhtyrka through Belgorod to Kozlov; the Simbirsk line, from Kozlov through Tambov to Simbirsk; and the Trans-Kama line from Belyi Yar to Menzelinsk. These new lines of posts had as their object the defence of the right bank of the Volga, no longer against the Nogai, but against the new Asiatic invaders who had superseded the Nogai, the Mongolic Kalmuck. In 1655 these Kalmuck became subject

to the Tsar. Behind the lines of fortresses, the Great Russians from the upper Volga and the Ukrainians from the right bank of the Dnieper began to settle down, forming agricultural islands among the local native population of nomads and the half-nomadic Cossacks. In this way the lower course of the Volga as well as western Siberia became Russian before the lower Don, which ceased to be Turkish only after Peter the Great had captured the fortress of Azov in 1690, or perhaps only after the Treaty of Kuchuk Kainarji in 1774, when Turkey was compelled by Russia to abandon her suzerainty over the Crimea, which was thus opened to Russian influence. This treaty did not put an end to Russo-Turkish rivalry, but it opened enormous possibilities to the Russian colonists, and cut off the Mohammedans of the Crimea and Volga, whether Turkish or Finnish, from their supporters in Constantinople. Before new relations were established between the Volga Moslems and the Mohammedan subjects of Russia in the Caucasus and Turkestan in the nineteenth century, the former Mohammedans had received an infusion of Russian culture.

(7) *Rebellions*

The military encircling of the Volga country by Alexis (1645-1676), Peter the Great (1682-1725), and Catherine the Great (1762-1796), produced discontent and opposition among the inhabitants. Risings were no longer started by the native Turko-Finns, though no doubt the Mohammedans on the Volga supported all rebellions against Moscow, but by Russians, either Cossacks or peasant sectaries, and by all those who wished to avoid the state reforms of Alexis, Peter, and Catherine.

Thus, during the reign of Alexis, the rising of Stenko Razin (1670) united under one banner the Don Cossacks (among whom the movement began) and all the inhabitants of the lower and middle Volga as far as Nijni-Novgorod. Razin was defeated, but smaller risings

under Bulavin, Zametayeff, and Niekrasoff followed; and the peasants united their demand for land with the national demands of the Finnish and Turkish nations of the Volga.

During the reign of Peter the Great there were two serious rebellions. The Bashkir revolt, which was begun on national and religious grounds in 1705 and lasted until 1728, broke out again in 1735 as a protest against the occupation of the land by Russian colonists. This time it lasted until 1755, and all the Mohammedans of the Volga supported the Bashkirs. Moreover, at the beginning of the Bashkir rebellion on the middle Volga, the military organization of the Streltsi raised a rebellion in Astrakhan, which was a protest against Peter's western reforms, and was supported by the Old Believers (Raskolniki). That was the last rebellion of the Streltsi, who were then suppressed.

The people of the middle and the lower Volga gave support to a rebellion against Catherine II under Pugacheff in 1773-5. This originated in the Orenburg country, but was especially vigorous on the Volga from Kazan to Tsaritsyn. It had a more Russian character than its predecessors. Pugacheff appealed to the persecuted peasant serfs, Cossacks and dissatisfied natives for support in his claim to the throne as the heir apparent of Peter III. Thus his movement had a Russian and even a monarchical character, though it appealed to all who would not participate in the westernisation of Russia, and were opposed to a strong central government.

(8) *Black Sea and Caspian reached by Russia*

The recognition of the independence of the Crimea was but one step in the Russian policy towards assimilating this, the last independent Turkish centre in Eastern Europe. In 1783 Catherine II claimed the Crimea for Russia; and by the Treaty of Constantinople (1784) Turkey allowed the claim. This gave Catherine a free hand in colonizing the coasts of the

Black Sea, the Sea of Azov, and the Caspian, in accordance with the same programme. The autonomous rights of the Cossacks were now finally suppressed, and those Ukrainian Cossacks who did not flee to Turkey were transplanted to the Azov country; while foreign immigrants, Germans, Greeks, and Armenians, were invited thither, together with the Russian sectaries who had hitherto been banished abroad.

After 1792 the population of the Volga and the Don Basins was divided into two categories : (a) the Russian and European colonists and the Volga Tatars, all of whom formed a settled agricultural population, and were governed as other subjects of Russia; (b) the steppe natives who received a special code of law by which they were freed from military duties and their clan organizations to some extent recognized. Russification of the middle and lower Volga reached its climax during this period, and scarcely any protest was heard from either the native or the Russian side.

In 1792, by the Treaty of Yassy, Russia occupied the Black Sea coast between the Bug and the Dniester, and at the same time continued the conquest of the Caucasus (finally acquired in 1859) and Central Asia. Thus by the beginning of the nineteenth century the middle and lower Volga and the Don formed part of the inner territories of the Empire.

(9) *The Nineteenth Century*

Till the revolution of 1905 the country of the upper Volga was one of the most prosperous in Russia, though the difference in prosperity between the upper classes and the peasants was here, as in other parts of the Empire, very great. Moreover, both prosperity and education decrease noticeably south and east of Nijni-Novgorod. The difference between the organizations of the peasants of the upper Volga and those of the middle and lower Volga was especially evident at the time of the agrarian reforms of 1907-1912. In the country of the upper Volga distribution of the land

acquired followed the plan of communal ownership, while on the middle and lower Volga individual ownership was more favoured. Especially was this noticeable in the Governments of Samara and Saratov, and to a less degree in those of Simbirsk, Novgorod and Kazan.

While Nijni-Novgorod was the centre of the Russian population of the middle and lower Volga, Kazan and, to some extent, Orenburg and Ufa were the centres of the non-Russian population, mostly Mohammedan. After the establishment of the Kazan University at the beginning of the nineteenth century a class of Russo-Tatar *intelligentsia* arose, which has produced such scholars as Ilmenski and Katanor. Russian policy towards the Mohammedans of the Volga varied according to the personality of the Tsars and their ministers. In 1870 and 1874 the Mohammedan schools were russified, and all Tatar books written in Arabic characters were severely censored. In 1886 a few Mohammedan teachers from Constantinople succeeded in penetrating the country of Kazan; but in 1903 new educational restrictions were issued concerning the Tatar native schools. It is therefore natural that Pan-Islamic propaganda from Constantinople, intended to promote the solidarity of all Mohammedans under the leadership of the Sultan as Caliph, has found some response in the Kazan country, which, being the oldest Mohammedan centre among the Mohammedans of Russia, claimed to be the leader of the other Russian Mohammedans in the Crimea, Caucasus, West Siberia, and Turkestan.

(10) *The Revolution of 1905*

On the outbreak of the revolution of 1905 the Russian Mohammedans combined for the first time in their history. Hitherto even their religious affairs had been dealt with not by one authority but by four (1, Transcaucasia; 2, the Crimea; 3, Turkestan and Transcaspia; and 4, the Volga and West Siberia); and not only did Government restrictions make an understanding between the several branches of Russian

Mohammedans difficult, but there were also differences in language and culture, while some followed Shia, some Sunni, rites. The first visible sign of an understanding was the creation of a Russian Mohammedan Party in the Duma of 1905, which persisted in the Dumas that followed. This party's political orientation did not surpass in progressiveness that of the party of Constitutional Democrats (Cadet). Soon after the outbreak of the revolution more than ten Tatar newspapers were established; and the Koran began to be printed in Arabic, not only for local use, but also for other Russian Mohammedan centres. In 1907 a new and more liberal statute concerning Mohammedan schools was issued, under which the use of both the Tatar and Russian languages was permitted. The Tatar women of Kazan showed their independent spirit, and were probably the first Mohammedan women to demand the reform of some of the traditional Mussulman customs, their demands including the abolition of seclusion and polygamy and the establishment of equal rights of inheritance. They also participated in the elections to the *zemstvos*. Between the revolution of 1905 and those of 1917 the Russian population of the middle and lower Volga underwent a considerable awakening. This internal liberal movement acted to some extent as a check on foreign Pan-Islamic propaganda.

(11) *The European War*

At the beginning of the war of 1914 the population of this part of Russia were almost reconciled to their Government; and both Mohammedans and Russians answered willingly the call to arms. But, as the war continued, the Russian peasants were disillusioned; and the Pan-Turkic (Pan-Turanian) propaganda affected the Tatar population, though it has been less successful here than in Asiatic Russia. Community of race and language was held to justify a united Mohammedan Empire of Turkish-speaking peoples under the

political regime of Constantinople. Such was the Pan-Turanian programme. It did not appeal strongly to the Kazan Tatars, divided as they were geographically from other Mohammedans and mixed with Finnic and Russian peoples.

(12) *The Revolutions of 1917*

After the revolution of March 1917 the first All-Russian Moslem Conference was held in Moscow on May 14, at which the Russian language was the chief means of communication. The Kazan Tatars put forward demands for cultural freedom, but politically they were more friendly towards Russia than were the Trans-Caucasian Tatars. A purely theoretical formula of the "self-determination of nationalities" was adopted, in which they concerned themselves with nationalities in Europe, Asia and Africa, but especially those of Mohammedan countries; and an All-Russian Moslem Council was established. A second All-Russian Moslem Conference was held in August 1917, at Kazan; this was especially concerned with educational reforms in a Mohammedan spirit. Women took a more active part at the first than at the second Conference, when a reactionary section of the Mullahs was against giving them equal rights. The revolution in its first stage gave rise to an idea—to some extent opposed to the Pan-Turkic movement of Constantinople—of a reconciliation and alliance between Russia and Turkey, ensuring the intercourse and development of the Mohammedans of both Empires. Some of the Kazan Tatar papers began to use the Russian language, and fraternisation was fairly universal.

The second or Soviet revolution of September and October 1917 met with opposition from the people of the middle and lower Volga, and had the effect of strengthening the national movements in Kazan and Astrakhan. About the time of the Treaty of Brest-Litovsk, a Tatar Republic was established at Kazan, and a Tatar-Bashkir Republic south-east of Kazan in

the Orenburg Government; while an attempt was made to create an Astrakhan Republic, which, however, owing to a lack of cohesion (there is no *zemstvo* in the Astrakhan Government), did not last long. Since the second All-Russian Moslem Conference, rivalry between the Kazan and Trans-Caucasian Tatars (Baku) has increased. The Kazan Tatars, who follow the Sunni rite and are of very old Mohammedan culture, influenced to a great extent by modern Russian culture and political conceptions, would naturally differ in their demands from the Tatars of the Caucasus, who mostly follow the Shia rite, and have been culturally far more in contact with Constantinople than with Russia, and politically subject to Russia for only about a century. Moreover, there is economic rivalry between them, since the Kazan Tatars depend on Great Russia economically, while the Baku Tatars depend on foreign capital to work their oilfields, and are rivals of the Russians in the colonization of the Caucasus. The Finnic Mohammedans and also the Tatars of Siberia and the Turks of Kirghistan are more influenced culturally by the Kazan Tatars than by Russia.

(B) THE DON BASIN

The history of the Don basin is closely connected with the history of the Don Cossacks, the records of which begin early in the sixteenth century, though the first Cossack bands were known as early as the fourteenth. Before the sixteenth century the Don basin had been the second barrier against all the Asiatic invasions of eastern Europe, the first being the Volga basin. Huns and Avars, Bulgars and Khazars, Pyecheneg and Kumans, were all at one time or another settled in the Don basin. The Tatars were the last to occupy the country, which they held until their power was destroyed by the Russians in the sixteenth century. Even then the Don basin officially belonged to the Khanate of the Crimea; and it is very doubtful whether the Russians would have been able to conquer

it easily had it not been for the voluntary colonization of the basin by independent immigrants, chiefly Great Russians but partly also Ukrainians.

The territory of the Don Cossacks after the seventeenth century was very limited. They were independent of the Upper Volga government, though they fought on the side of the Russian princes in the battle of Kulikovo in 1380. They succeeded in undermining the authority of the Crimean Tatars over the basin and over the port of Azov by their constant raids in the sixteenth century. In 1637 they actually captured the port of Azov, and wished to present it to the Tsar of Moscow, who however declined the offer, feeling that he had not the means of keeping the port in his possession. When, in 1549, the Nogai prince complained to Ivan the Terrible of the depredations of the Don Cossacks, the Moscow Government replied that the Don Cossacks were renegades who did not recognize the authority of the Tsar. Yet they gave their help to Moscow in subjugating the Khanate of Kazan in 1552 and the Khanate of Astrakhan in 1556. In 1570 the Tsar sent to the Don Cossacks an envoy whose mission it was to persuade them to enlist in his service, for which generous compensation was promised. This was the first of incessant and often forcible attempts to subjugate the Don Cossacks to Moscow—a process finally accomplished in 1623, though the territory was not formally acquired from Turkey till 1690, when Peter the Great took Azov.

The history of the Cossacks in the seventeenth and eighteenth centuries is the history of one long struggle between the growing power of the Russian State and these communities, whose reorganization into regiments or *voiskos* (depending directly on the Minister of War and not on the army) was a task neither easy nor rapid. Curiously enough, while the regions of the Dnieper, the Don, the Yaik (Ural) and the Terek continued for a long time to be the quarter whence liberative movements originated, and where rebels found support, those branches of the Don and Yaik

Cossacks who were amalgamated with the forces sent from Moscow to the conquest of Siberia at once became the most devoted servants of the Tsar. The history of the European Cossacks in Siberia, who were originally a branch of the Don Cossacks, is thus somewhat different from their history in Europe. Some of the most renowned rebels against the central government, as Stenko Razin and Pugacheff, still live in the sagas and folk-songs of the Don Cossacks as democratic reformers, fighting for land and freedom for the people, generous to the Holytba (poor Cossacks), just to the Domovityie (rich Cossacks), severe in their morals, and devoted to their cause.

III. SOCIAL AND POLITICAL CONDITIONS

(A) THE VOLGA BASIN

Racial Composition

THE result of the thousand years of colonization of the Volga basin by the Great Russians (originally called the Russ of Novgorod and the Russ of Kiev) is that almost seven-tenths of the present inhabitants are Great Russians. The aboriginal population is almost entirely composed of some still unassimilated Finns and the Turkic people commonly called Tatars. The most purely Russian Governments, i.e. where the Russians form about 99 per cent. of the population, are Vladimir, Kostroma, and Yaroslav. In Nijni-Novgorod the Russians form 93 per cent. of the population. Simbirsk has 67 per cent. of Russians, Saratov 76 per cent., and Samara 64 per cent., while the smallest percentage of Russians is found in the Governments of Astrakhan (40 per cent.), and Kazan (38 per cent.).¹ In the lower Volga district, the Russian colonists are composed of Great Russians and Ukrainians. In the Samara Government the Ukrainians number only 4·3 per cent., in the Saratov Government 6·2 per cent., in the Astrakhan Government 13·2 per cent. In the Kazan Government, where the Russians form little more than one-third, about 54 per cent. of the population are Turko-Tatars and tatarised Finns, and some 8 per cent. unassimilated Finns. The other centre of the Turko-Tatar people is Astrakhan, where they form 30·4 per cent. of the population, while the Mongol Kalmuck form some 13·8 per cent.

¹ According to the latest statistics, published in 1916 by the Central Statistical Society, Petrograd. See *The Russian Year-Book*, ed. N. Peacock, 1919.

A bridge between the Turkish centres in Kazan and Astrakhan is formed by the Turko-Tatar and Finnic people. Thus, in the Government of Saratov, the Turko-Tatar population still forms 4·5 per cent. and the Finnic people 5 per cent.; in the Government of Samara the Finns form 8·8 per cent. and the Turko-Tatars 13·9 per cent.; and in the Simbirsk Government the Finns are 12·4 per cent. and the Turko-Tatars 19 per cent., while in the Government of Kazan the Finns are represented by 8 per cent. The Government of Nijni-Novgorod has some 2·6 per cent. of Turks in its north-eastern corner, and some 3·7 per cent. of Finns in its south-eastern corner.¹ Of the Finnic-Tatar peoples, like the Bashkir, the majority live outside the Volga district, in the Ufa and Orenburg Governments.

The chief elements of the population are as follows :

1. *The Great Russians* in their colonization of the country, especially that of the upper Volga, did not follow any organized plan until the sixteenth century, when the Moscow Government endowed their nobles with land, not only on the upper, but also on the middle and lower Volga. In connection with this measure, serfdom was introduced. The native Tatar and Finnic admixture among the Great Russians becomes more marked towards the south.

2. *The Little Russians or Ukrainians* appeared in the country of the lower Volga in the seventeenth and eighteenth centuries, especially after the reign of Peter the Great, who made a line of forts from Tsaritsyn to the Don to defend Russia from the Kuban Tatars, and brought Ukrainians to live in them. They have mixed sometimes with the Great Russians, but not with the natives. Since their chief occupation is obtaining and distributing the salt from the lakes, they are called *chumaki* (local name for the occupation).

¹ These official statistics were checked by the Central Statistical Society of Petrograd in 1916, but are, if anything, to the disadvantage of the native populations, who in many cases adopted Russian as their second language, but consider themselves a nation apart.

3. *The Germans* of the Volga basin originally came from Westphalia, Bavaria, Saxony, Swabia, Alsace-Lorraine, and Switzerland. They live in 190 colonies in the Samara Government (districts of Nikolaev and Novo-Uzansk) where they form 8.2 per cent. (in 1916) and in the Saratov Government (districts of Kamishin, Atkarsk, Saratovsk, and Tsaritsyn), where they form 6.9 per cent. (in 1916). Their number, according to the last census, was about 400,000. They own some one and a half million *desyatines*,¹ partly as private but chiefly as communal land. The colonists of Saratov have adopted Russian names, while those of Samara keep their German names. The first German colonists came after the decrees of 1763 and 1764. Their chief occupations are agriculture, especially the planting of tobacco, and hand industries, such as carpentry and smiths' work. They are Lutherans, Protestants of non-Lutheran creed, or Catholics. In the town of Saratov there is a Catholic seminary for German clergy, and thus the town has become the centre for the German Catholics in Russia, while the Protestant German clergy come mainly from the Baltic provinces, with which they naturally have closer relations. On the whole, the German colonists on the Volga mix less with the Russians than they do in the Baltic provinces or in the Ukraine, and there are many of them who can scarcely speak Russian.

4. *The Tatars*.—Various Turkic or turkicised peoples, remnants of the Khanates of Kazan and Astrakhan, live chiefly in the Kazan Government (according to the 1909 census, about 1,200,000, though this number can easily be challenged) and in the Astrakhan Government (50,000). From the original Kazan centre, however, the Tatars dispersed all over the Volga country and the large cities of Russia; and they are now to be found in the Governments of Petrograd, Moscow, Ryazan, Tambov, Orenburg, Perm, Nijni-Novgorod, Pensa, Saratov, Vyatka, Samara, Simbirsk, and Ufa.

¹ 1 *desyatine* = 2.7 acres.

The reason for so wide a distribution is to be found in the fact that the Tatars have an aptitude for commerce, being good hawkers and pedlars, and that they form almost half of the domestic servants, hotel-boys and horse-dealers in the large towns of Russia. They also have a monopoly of the export of salt and hides, and a considerable share in that of corn, for the Kazan Tatars are well known as agriculturists and gardeners. In all these occupations a class system is preserved. To the upper class belong the nobility and clergy (the various Khans, Begs, Oga, Murza and some princes who own lands as *Mulkadars*, i.e. receiving from the cultivator a *mul*, or four-tenths of the harvest). The next or middle class is formed of financiers and manufacturers, and the third or lowest class of agriculturists, gardeners, pedlars, domestic servants, etc. The upper class is more russified than are the other classes, though the intellectuals, the *intelligentsia*, who belong to the middle class of the Tatars, are the most independent in Mohammedan religious matters. On the whole, the Volga Tatars are very intelligent individually, but are socially backward. There are scarcely, if any, social organizations other than religious.

The Tatars of Astrakhan live in that part of the town of Astrakhan which is called Tsarevo. In the Government of Astrakhan the Tatars are divided into (a) Yurtovsky, those who live in the *yurta* or felt tent and are descended from the Turko-Mongols of the Golden Horde; and (b) Kundorovsky, or Nogai Tatars, who migrated to this part in the eighteenth century from the northern Caucasus. They live especially in the district of Krasnoy-Yar, and are nomad cattle-breeders, while the Yurtovsky Tatars are agriculturists, gardeners, and traders.

5. *The Kalmuck* live chiefly in the Government of Astrakhan. They belong to the western branch of the Mongols, and they came to the right bank of the River Volga from Jungaria in the seventeenth century. They soon subjugated to themselves all the native popu-

lation from Samara to Simbirsk, though they were formerly the vassals of Moscow. When, in 1771, the Russian Government imposed on them its administration, most of the Kalmuck, especially of the Torgout clan, went back to Mongolia; and the remaining seven *ulus* (settlements) were concentrated in the steppes between the Volga and the Don. They are usually called the Volga, Don, or Stavropol Kalmuck. In 1897, their number was officially given as about 190,000; but an ethnologist, H. Zhitetsky, who studied them a little earlier, estimated it at half a million. They speak and write Mongol and, with the exception of a small number of pagans, are Buddhists. They are for the most part cattle-breeders. In 1892, the Russian Government issued a code of law for the steppe natives, based on tribal law, which destroyed the power of the Kalmuck nobility over the commoners. The clergy play a very influential rôle among them, and in 1862 formed 5 per cent. of the male population.

6. *The Mordva*.—Before the Russian colonization, the Mordva (a Finnic tribe) occupied the territory between the Volga, the Oka and the Sura. Now their territory is less extensive, but it is still spread over the Governments of Kazan, Samara, Saratov, and Simbirsk, as well as Ufa and Orenburg. They are divided into two sub-groups. The larger of these is called Erza and is situated in the southern districts of Nijni-Novgorod and Simbirsk, and in the Governments of Tambov, Pensa, Samara, Orenburg, and Ufa. The smaller group is called Moksha; its members live in the Saratov Government. The state of Mordva was independent before the time of the Black Bulgarian Khanate, and then became a dependency of Bulgaria and the Tatars. In spite of this political dependence, its agricultural development gave it a unique place among the Finnic tribes. It was only after the fall of Kazan that this state passed under Russia: and it was colonized only after the best Mordva land had been distributed among the Russian nobles. The Erza Mordva gave an active support to the risings of Stenko Razin and others.

Under the pressure of Russian colonization they migrated south to the Governments of Simbirsk, Tambov, and Pensa. The Mordva of Nijni-Novgorod accepted Russian Orthodoxy in the sixteenth century; but even these kept their native Finnish language, and lived in their own villages, where they were more prosperous than the Great Russians in theirs. The Mordva of Saratov are surrounded by the Russian sectaries, who have a strong influence over them. Hence, even among the Mordva women, there is a strong tendency towards monastic life. At the time of the last census, there were about half a million Mordva.

7. *The Cheremis* are usually divided into meadow and mountain Cheremis, according to whether they live on the right or left bank of the Volga. They live to the number of about 100,000 in the northern districts of the Kazan Government, but the bulk of them are found in the Government of Vyatka. The Cheremis have adopted the Turkish language, and are very dependent on the Tatars.

8. *The Meshchera* (Finnic) live, to the number of 10,000, in the Balashov and Gerdobsk districts of the Saratov Government. They are perhaps the most russified of all the natives, since they formerly lived in the Government of Ryazan, which was thoroughly permeated with Russian culture.

9. *The Chuvash*.—Two-thirds of the Chuvash live in the Kazan Government and a few of them also in the Government of Saratov. They are also divided into those who live along the river Sura on the hilly side of the country, and those who live in the low-lying districts. They are first heard of towards the end of the sixteenth century, when the Russians penetrated to their lands. They are considered to be the descendants of the Volga Bulgars, but, like the Cheremis, they now use the Turkish language.

10. *The Kirghis* and the *Kaizak-Kirghis* are all nomads. Those living in the Trans-Volga district of the Astrakhan Government are called Bukeev

Orda ("Inner Horde"), while the others belong to the "Little Horde." They number some 200,000.

Occupations

Agriculture, forestry, fishing and hunting are the chief occupations of the people in the Volga basin.¹ These occupations are followed, in the Governments of Simbirsk, Samara, and Kazan, by more than 800 out of every 1,000 inhabitants; in the Governments of Saratov, Yaroslav, Kostroma and Astrakhan by more than 700, in the Government of Nijni-Novgorod by more than 600, and in the Government of Vladimir by more than 500. In the Government of Astrakhan fishing, hunting, and cattle-breeding are the chief occupations. Mining and domestic industries play an important rôle in the Government of Vladimir, where, out of every thousand, 270 are engaged in them. In Nijni-Novgorod 150 are thus occupied; in Kostroma and Yaroslav 100; in the Government of Saratov 80; in the rest, the number fluctuates between 40 and 60.

Trade occupies the greatest number of people in the Governments of Yaroslav and Astrakhan (36 per 1,000); then come Saratov (31 per 1,000), Nijni-Novgorod (30 per 1,000), Vladimir (27 per 1,000), Samara (22 per 1,000), Kazan (19 per 1,000), Kostroma (18 per 1,000), and Simbirsk (17 per 1,000). Of people who live on private means or are supported by government endowments,² the largest number live in the Yaroslav Government (24 per 1,000). Then come Vladimir (21 per 1,000), Nijni-Novgorod (19 per 1,000), Saratov (16 per 1,000), Kostroma and Astrakhan (15 per 1,000), Kazan (14 per 1,000), and Simbirsk (also 14 per 1,000). In the first class of occupations (agriculture, fishing, etc.) must be included cattle-breeding,

¹ In the official statistics these occupations are grouped in one class, according to Yasnopolski, who bases his work on the statistics of 1909.

² This does not mean government officials, who are grouped together with the professionals and form between 13 and 15 per 1,000 in each government.

which is most advanced in Vladimir. The so-called *kustarni* industries (home industries) are especially well developed in the Governments of the upper Volga.

Generally speaking, the upper Volga country, including Nijni-Novgorod and Rybinsk, is closely connected with the central industrial district of Great Russia lying around Moscow. Nijni-Novgorod is one of the chief centres for the trade of the interior of Russia, while Rybinsk is the chief corn centre for the whole of the north of Russia. It is also the demand of the central industrial provinces which makes the *kustarni* industries of the Governments of Vladimir, Nijni-Novgorod, Yaroslav and Kostroma so flourishing. The surplus of labour from the upper Volga migrates in the off-season to the central provinces. The middle Volga country and the northern part of the lower Volga are agricultural; the flour industry of the Saratov and Samara Governments, and the timber trade (at Tsaritsyn) of the Saratov Government, are the most important industries. The people of the lower Volga are chiefly occupied in cattle-breeding and bee-keeping. All over the Volga country a great percentage of the population is engaged on river navigation work. Still, there is a great surplus of labour, which every year migrates to Sysran, Saratov, Pokrovskaya or other places in search of temporary work.

Density of Population

According to the statistics of 1913 (Yasnopolski), this is as follows: Kazan, 50 people to the sq. verst (= 0.44 sq. mile); Simbirsk, 46; Nijni-Novgorod and Vladimir, 45; Saratov, 42; Yaroslav, 40; Samara, 27; Kostroma, 23; and Astrakhan, 6.

In 1909, in the Government of Kazan, there were 2,433,600 people living in the rural districts and only 218,600 in the towns. In the Government of Simbirsk, 221,351 people live in towns, while 1,328,109 live in the rural districts. The rural population in Nijni-Novgorod is 1,820,300, while the urban is 156,500. In

the Government of Vladimir there are 1,643,900 people living in the country and 228,100 in the towns; in the Government of Saratov, 2,635,500 in the country and 426,400 in the towns; in the Government of Yaroslavl, 1,048,000 in the country and 160,100 in the towns; in the Government of Samara, 3,309,800 in the country and 178,100 in the towns; in the Government of Kostroma, 1,570,300 in the country and 104,500 in the towns; and finally, in the Government of Astrakhan, 1,047,100 in the country and 183,200 in the towns.

Education

According to the statistics of 1909, the percentage of literates is highest in the Government of Yaroslavl, where they form 40 per cent. of the total population. Then comes the Government of Vladimir with 35 per cent. The remaining governments come in the following order: Kostroma, 32 per cent.; Saratov, 31 per cent.; Samara, 29 per cent.; Nijni-Novgorod, 28 per cent.; Kazan and Simbirsk, 23 per cent.; and Astrakhan, 20 per cent. There is only one university in the Volga basin, namely, at Kazan. On account of the war, the University of Warsaw was moved in 1915 to Saratov. Kazan, however, is the centre of higher education, having, besides the university, an academy for the Orthodox clergy, a veterinary institute, and about thirty-two schools. It is strange, therefore, that the number of literates in this government is almost the lowest; but this may perhaps be explained by supposing that the Russian census disregarded those who could read and write in a native, but not in a Russian, language. It must be remembered that Kazan was the centre of Mohammedan learning, which was forcibly suppressed until the reopening of the Russian Kazan University at the beginning of the nineteenth century. when the Turkish language and history were there studied by many scholars. Since 1716, when the first Russian school was opened in the district, the Russians have tried to transform the native religious schools into

Russian government and church schools. After the Government of Kazan, the greatest number of schools is found in the Government of Saratov, where there are about twenty. The influence of the German colonists in Samara, Saratov, and to some extent Astrakhan, is very noticeable in educational matters.

Education has been chiefly cared for by the *zemstvos* except in the Government of Kazan, where it was made a matter of politics and a means of spreading Great-Russian learning, and in that of Astrakhan, where there were no *zemstvos* and the level of education was very low. The Turko-Tatar schools, *mektebs* and *medressehs* (Mohammedan higher and lower church schools), were placed under the Russian Ministry of Education in 1874; and, a few years previously, the Russian language was introduced into all of them. The Law of 1907 gave more freedom to these schools, but it was only after the revolution of 1917 that they became again quite independent.

The greatest number of printing establishments at the time of the last census was in Saratov (21). Kazan had 15 and Samara 12. The greatest number of bookshops was in Saratov, where there were 84. Samara had 22, Astrakhan 20, and Kazan 17.

The chief Mohammedan papers of the Volga basin are the *Nasha Gazetta*, *Terdzhiman*, *Mussulmanin*, *Mir Mussulmanskii*, *Vakt*, and *Turmush*.

Religion

The Russian Orthodox religion is followed by almost three-fourths of the people in the Volga basin. Next in numbers come the Mohammedans, some 16·4 per cent.; the Protestants, 3·3 per cent.; and the sectaries, 2·3 per cent. (These official figures of the 1896 census are open to challenge.) The Buddhists and Catholics form about 1 per cent. each, while Armenians number 0·1 per cent., and the Jews 0·05 per cent.

The sectaries represent almost all the existing sects in Russia, not only branches of Protestantism such as

Baptists, but also Mennonites, Dukhobors, and offshoots of Russian Orthodoxy such as the Skoptsi. They are especially numerous in the Governments of Nijni-Novgorod (4·7 per cent.), Samara (3·5 per cent.), Saratov (2·8 per cent.), and Simbirsk (2 per cent.). In all these governments the Russian Church has instituted special monasteries and schools to convert the sectaries, just as in the Governments of Kazan and Astrakhan there are special missions for the conversion of the Moslem. The total number of Mohammedans under the jurisdiction of the Orenburg Mohammedan circle was, in 1909, 5,283,618. Of these, some 1,500,000 are Kazan and Astrakhan Tatars, and some 2,400,000 are Bashkir and Chuvash. The remainder are the Tatars of Siberia and a part of the Kirghis.

(B) THE DON BASIN

The Don Cossack territory extends over 143,167 sq. versts, and has a population of 3,395,900, of which 3,050,100 live in the country (according to the statistics of 1909). The country people live either in military camps or in villages. The military are divided into ten regiments. The Kuban Cossacks form thirteen regiments.

Speaking generally, the Cossacks have three or four times as much land per head as the Russian peasantry. Besides very large endowments of land, they enjoy the privilege of being free from taxation and of being governed by a special Cossack Board in the Ministry of War, which makes them autonomous as regards the neighbouring population. In 1905, out of 14,074,000 *desyatines* of arable land, 2,318,000, or 16·5 per cent., were owned by individuals, and 9,847,000, or 70 per cent., by village communities. The remaining 13·5 per cent. belonged to the State or was held in the form of appanages.

In return for their privileges, the Cossacks have to render military service to the State. Theoretically, all the male population from eighteen years of age has to

serve for nineteen years. Those not fit for military service pay money to the community, and are placed on the lists of special regiments called *lgotnyie polki*. The Cossack is obliged to provide his own horse and uniform, the Government supplying only arms. Several other duties normally devolving upon the Government, such as the upkeep of the roads and of schools, and the provision of medical treatment, rest with the Cossack community. As compared with the bulk of the Russian army under the old regime, the Cossack regiments are of small proportions. In times of peace the total number of all Cossacks under arms is 55,000; in time of war the number is 180,000. But, as a matter of fact, during the late war many more of them were called out. It is common knowledge that, as a fighting force, their quality far surpasses their quantity.

The Don Cossacks' territory was divided in 1802 into seven districts, to which others were added in 1806 and 1887, when the territory was divided into the following nine districts (*okrug*): Cherkasski, Donski I, Donski II, Ust-Medvieditski, Khoperski, Donetsk, Rostovski-on-Don, Taganrogski, and Salski. The whole territory was governed by an *ataman* or hetman. Each district had also its Ataman General. The land belonging to a *voisko* (regiment) is only to a small extent used by its own people; the greater part is rented to various non-Cossack people, excluding Jews. Thus, in the Don territory only 400 people per 1,000 are Cossacks; and in the other Cossack territories the percentage of Cossacks is still smaller. The Great Russians are in a majority, forming 66·8 per cent. of the population; then come the Ukrainians, 28 per cent.; the Germans, 1·3 per cent.; the Mongols number 1·2 per cent.; and the Jews, 0·5 per cent. The chief social distinction within the Cossack community is that the officers, who are nobles, are permitted to have private estates out of the land belonging to the *voiskos*. As a rule, also, they are better educated, though on the whole the percentage of illiterates among the Cossack popula-

tion is small. Among the Don Cossacks the percentage of those who can read is 66, while that among the other peoples inhabiting their territory is only 30.

In peaceful times the Cossack industries are agriculture, fishing, and cattle and horse breeding. In 1897, 754 out of every 1,000 people were engaged in these occupations. Agriculture, however, is still at a primitive and wasteful stage. Artisans and miners number 96 out of every 1,000.

In 1892, the Don Cossacks were divided in their religious beliefs as follows :—Of the Orthodox Church, there were 1,864,881; of the sectaries, 123,039; of other Christians (possibly also sectaries), 43,714; of Jews, 15,154; of Mohammedans, 2,478; and of Buddhists, 29,551.

The Government of Voronezh, situated on the upper Don and its tributaries, shares, to a great extent, the features of the Don basin. In 1909, the population numbered 3,286,700, of whom 187,000 lived in towns and 3,099,700 in the country. The literates number only 22 per cent. In 1897, 852 out of every 1,000 people were engaged in agriculture, hunting, fishing and forestry, 58 in mining and home industries, and 20 in trade. Out of 5,618,000 *desyatines* of land, 28·3 per cent. was privately owned, and 66·7 per cent. was held in communal ownership. The remaining 5 per cent. was government land and appanages, but the territory in cultivation in 1909 only amounted to 1,844,000 *desyatines*. Ethnically, as well as economically, Voronezh resembles the Don Cossack territory, in the predominance of Great Russians (63·3 per cent.) over Ukrainians (36·1 per cent.), and also in the fact that it has almost no other ethnic element, the Jews forming only 0·09 per cent. and the Germans 0·08 per cent. of the population.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) Roads

ROADS as a means of communication do not reach a high standard in Eastern Russia, nor have they been constructed in any close network to facilitate local transport. For administrative purposes the authorities divide them into three classes: metalled roads, paved roads, and soil roads. The metalled roads are for the most part constructed by the State for strategic purposes. In the area under consideration, which is more than twice that of Great Britain and Ireland, the length of first-class roads amounts only to 622 miles, and of this almost negligible mileage over two-thirds is in the closely populated industrial province of Vladimir. Second-class or paved roads are also few in number; in the whole area their total length amounts only to 557 miles, scattered about in small sections. Roads of the third class, which are merely tracks worn by traffic, upon the upkeep of which very little is spent, have a total length of 131,177 miles. More than half of this is in the Don Cossack territory, the remainder being fairly evenly divided among the other provinces. Astrakhan, however, although fourth in size of the Governments of European Russia, has only 3,378 miles of road, all of the third class.

The upkeep of the roads is undertaken by the State, the *zemstvo*, or the *mir* (local commune), according to the degree of importance of each particular road. None of these authorities spends adequate sums on maintenance as understood in Western Europe. It must not, however, be overlooked in this connection that

for at least five months in the year a hard-frozen surface, with a thick covering of snow, enables sledge traffic to proceed on a large scale, and that the transport problem is thus partly solved. In the more closely-populated industrial provinces some development of roads suitable for commercial motor-traffic is foreshadowed; but in the agricultural and steppe provinces the comparative thinness of the population over vast areas and the timely assistance of the winter conditions already mentioned will probably combine to leave roads much as they are for some time to come.

(b) *Rivers*

The River Volga is the longest navigable waterway in Europe. Its length from the source to the Caspian is 2,325 miles, while the straight line between these two points is only 992 miles in length. The Volga becomes nominally navigable at a point 75 miles from the source, where is situated the "Upper Volga Dam." This is a wooden erection on a stone foundation, constructed in 1843, which holds back considerable quantities of water in the spring season, releasing it as required in July and August, when the river falls and navigation is impeded for lack of depth.

Although it is the most important waterway in Russia and carries a vast traffic, the Volga suffers from certain natural disadvantages, common to all Russian rivers. It is completely frozen up for a period of the year which varies at different points from 195 to 260 days. Again, the area of its basin is slowly drying up, especially in the lower reaches; the rainfall is gradually decreasing, and dry seasons with consequent low water from July onwards are becoming more and more frequent. During May and June a depth of 30 ft. of water throughout the length of the Volga from Rybinsk to the Caspian can be reckoned upon; but there is always a subsequent fall, and this is frequently so great and rapid that from July until the freezing up

full freights cannot be carried. A notably bad year was 1913, when the river fell in places to a depth of as little as 30 inches, and only half freights could be loaded until the close of the season. Yet another cause tending to hamper navigation is the reckless exploitation of the riverside forests, which has rendered the banks so unstable that at flood-times enormous quantities of soil are washed down, large sandbanks formed, the bed altered, and navigation channels obstructed.

The average quantity of freight carried annually on the navigable waters of the Volga basin is 16 million tons. This is only a quarter of the amount carried by the Rhine; nevertheless the importance of the Volga basin to Russia is very great. Of the various commodities carried over the inland waterways of Russia, the proportion freighted in the Volga basin is 50-60 per cent. of the grain of all kinds, almost all the mineral oil, 85 per cent. of the salt, and 37 per cent. of the timber.

For purposes of navigation the Volga is divided into six sections: (1) From the Upper Volga Dam, 75 miles from the source, to Tver; (2) Tver to Rybinsk; (3) Rybinsk to Nijni-Novgorod; (4) Nijni-Novgorod to Kazan; (5) Kazan to Tsaritsyn; (6) Tsaritsyn to the Caspian Sea. In most of these sections there are rapids and places dangerous to navigation.

The first section is exclusively used for floating rafts, some of which are shot through the open sluices of the dam. The rapids and shallows here are many, and the dangers of navigation are great.

Section two is also relatively of small importance, and is used by barges for local traffic only. Up to June 20th vessels drawing 2 ft. may use the river; after that date the draught must not exceed 21 in. Navigation usually ceases early, owing to lack of water. The influence of the Upper Volga Dam is felt slightly in this section, raising the water sometimes as much as 9 in., which is sufficient to tide over the difficulty of low water.

Rybinsk is the real head of Volga navigation. The main river is joined by the Mologa a few miles above the town, and by the Shekhsna at Rybinsk itself. The Shekhsna is navigable and provides the connections by means of the Marie and Alexander of Würtemberg canals with the basins of the Neva and the Northern Dvina respectively. The largest vessels plying on the Volga, including the luxurious passenger steamers, make their way up to Rybinsk. The town is practically a large warehouse and transfer station, cargoes being transferred here into smaller vessels for further transit or loaded on rail. Fifteen thousand vessels on an average enter and clear the port annually.

Section three, from Rybinsk to Nijni-Novgorod, is 349 miles long, and contains the important towns of Yaroslav, Kostroma, Kineshma, and Jurievets-Povolgsk. The normal draught of vessels in this section is 3 ft. 6 in., but in years of low water navigation is completely suspended in July and August. There are 30 commercial landing-stages and 20 *satoni*, or harbours suitable for wintering vessels.

Section four, from Nijni-Novgorod to Kazan, is 299 miles long, and contains the important towns of Makariev (where the fair now held at Nijni was formerly held), Kosmodemyansk, noted for its timber fair, Vasil, and Svyashk. The normal draught of vessels in this section is 5 ft. There are 40 commercial landing-stages and 40 harbours, but only 10 of the latter are thoroughly ice-proof, the best being at Linkhovsk, Zhkovsk, Linskovsk, and Zvenigsk. In spite of the size and importance of the town, there is no harbour at Nijni-Novgorod.

Section five, from Kazan to Tsaritsyn, is 938 miles in length, and includes many important cities and towns, among which are Spask, Simbirsk, Stavropol. Samara, Sysran, Vologsk, Saratov, and Kamishin. The normal draught of vessels in this section is 7 ft. There are 37 commercial landing-stages and 28 harbours; of the latter six are thoroughly safe and ice-proof, namely, those at Spask, Balimirsk, Samara,

Cherny, Alexievsk, and Tsaritsyn. At a spot 15 miles above Tsaritsyn the Volga divides into two arms which join again some 70 miles lower down. The arm which runs more direct is called the Akhtuba, but, as it misses Tsaritsyn, it is little used for navigation.

Section six, from Tsaritsyn to the Caspian Sea, is divided into two parts: (i) from Tsaritsyn to Astrakhan, 343 miles, where the navigation is still of the river type; and (ii) from Astrakhan to the open Caspian, 71 miles, a stretch of non-tidal estuary offering peculiar difficulties to traffic. Between Tsaritsyn and Astrakhan the Volga is split up by many hundreds of islands, some of which are several miles in length. At high water season in May and June the islands are submerged, and a vast area on either side of the river is flooded. On this reach the only places of importance are Chernoi-Yar and Yenotayevsk, which are fishery centres. Some little distance above Astrakhan the Volga delta commences, and large bodies of water flow in a south-easterly direction. The main navigation channel continues in a south-south-westerly direction past Astrakhan to the sea. From Astrakhan to the Bachtemirowsk branch there is usually a depth of 21 ft. of water. Lower the channel shoals to 8 ft., and continuous dredging is necessary to maintain even this depth.

The fleet of vessels on the Volga consists of steamers, sailing-vessels, and various types of barges and lighters. In 1909 there were 2,099 steamers and tugs, and 8,445 other vessels. The passenger boats of latest type are twin-screw vessels driven by Diesel engines. There are numbers of mixed cargo and passenger steamers engaged in local traffic, and many steam tugs. A large number of timber rafts are floated down the river, and one type of vessel, the *byelyana*, is built entirely of cut timber and broken up on arrival at its destination. Sailing-vessels are few in number and ply only on the sea reach.

The large craft known as "barges" account for 50 per cent. of the whole cargo-carrying fleet. The larger

examples of this type can only be used when the river is at its highest level in April, May, and June. During this period they may be able to make two and possibly three voyages from Astrakhan, after which they discharge into smaller vessels at convenience, or lie up till next season. This is apparently considered the most economical method of freighting, although the use of these deep-draught vessels entails their being idle for nine months in the year.

The Volga has many affluents, providing in all 3,870 miles navigable by steamers. The following list shows those on which there is steamer traffic:—

| River. | Head of steam navigation. | Length navigable. |
|-------------------------|--------------------------------|-------------------|
| | | <i>Miles.</i> |
| Mologa .. | .. Town of Vesegonsk .. | 89 |
| Shekhsna .. | .. Outlet of the White Lake .. | 271 |
| Kostroma .. | .. Mouth of Veksa .. | 98 |
| Unsha .. | .. Village of Ugory .. | 99 |
| Oka .. | .. Town of Byelev .. | 797 |
| Moksha ¹ .. | .. Village of Jergushevo .. | 92 |
| Klyasma ¹ .. | .. Mouth of Jesa .. | 77 |
| Sura .. | .. Village of Promseno .. | 231 |
| Vetluga .. | .. Town of Vetluga .. | 215 |
| Kama .. | .. Mouth of Vishera .. | 759 |
| Kolva ² .. | .. Mouth of Visherka .. | 79 |
| Silva ² .. | .. Town of Kungur .. | 105 |
| Byelaya ² .. | .. Town of Ufa .. | 310 |
| Vyatka ² .. | .. Town of Slobodskoi .. | 475 |
| Great Irgis .. | .. Town of Nikolaevsk .. | 173 |

¹ Affluents of the Oka.

² Affluents of the Kama.

The most important of these tributaries is the Kama, which joins the Volga on the left bank between Kazan and Simbirsk. With its own four navigable affluents, the Kolva, Silva, Byelaya, and Vyatka, the Kama basin has 1,945 miles navigable by steam vessels. The Kama itself is a good river for traffic and has a deep channel with few obstructions. The Oka, with its affluents the

Moksha and the Klyasma, has in its basin 1,087 miles of water navigable by steamers, but it is much obstructed by shallows and rapids, and comparatively little use is made of it. The fact that a fairly close network of railways operates in its basin further reduces its value as an avenue of traffic.

The following table shows the principal ports on the Volga and their turnover in 1909 :—

| | | | <i>Tons.</i> |
|----------------|----|----|--------------|
| Nijni-Novgorod | .. | .. | 2,135,000 |
| Tsaritsyn | .. | .. | 1,656,000 |
| Rybinsk | .. | .. | 1,386,000 |
| Saratov | .. | .. | 1,075,000 |
| Astrakhan | .. | .. | 1,005,000 |
| Samara | .. | .. | 820,000 |
| Kazan | .. | .. | 748,000 |
| Kostroma | .. | .. | 359,000 |
| Sysran | .. | .. | 337,000 |

The basin of the Don has navigable waters, but their length and capacity bear no comparison with those of the Volga. The full length of the river is 1,325 miles. The climatic conditions are much the same as those on the Lower Volga, and a spring flood is followed by a period of low water from July to October, when navigation is frequently suspended.

The River Don is not favourably situated for navigation. Its course is very devious, and it has to compete with railways which connect the most important points by a much shorter route. The river itself, having been neglected since the beginning of the railway era, is in bad condition for shipping. The banks of the middle and lower reaches are treeless, and the current is continually breaching them and forming subsidiary beds, to the detriment of the navigable channel. The river is, however, suitable for floating timber, of which a considerable quantity is close at hand. Navigation is confined in general to the spring and early summer, when a good depth of water is usual. Steamers go up as far as Pavlovsk in Voronezh Government. There are three kinds of barge in use, which load up to 200, 160,

and 100 tons respectively. In the lower reaches down to Rostov a larger class of vessel is used, which can load up to 800 tons, but its use is restricted to the spring flood season. In 1906 the fleet of vessels was as follows: steamers 195, other vessels 471, rafts 951. The principal cargoes are breadstuffs and timber.

Recently the Don has been used for the transport of coal from the Donets region to Rostov. The Donets has been made navigable for barges up to 300 tons capacity by means of a system of locks, which was completed by 1914. A similar system was projected for the Don itself below Kalach, the most easterly point touched by the river, where it is only 40 miles from the Volga. The work was begun in 1914, but not much has been accomplished. This scheme is undoubtedly the forerunner of the long-projected Volga-Don canal, which would give an outlet for Volga and Caspian traffic to the Black Sea.

(c) *Canals*

A noticeable feature of the larger Russian rivers is the fact that in their upper reaches they approach one another fairly closely. Projects for joining different navigable rivers by means of canals have existed for that reason from ancient date. In the case of the Volga, the most desirable connections, as soon as the conquests of Peter the Great had given Russia an outlet on the Baltic, were with the Neva, which falls into the Gulf of Finland near Petrograd, and with the Northern Dvina, which has its outlet at Archangel.

Three systems for the connection of the Volga and the Neva were inaugurated and eventually completed in the nineteenth century. They are known respectively as the Marie, Tikhvinsk, and Vishnivolotsk canal systems. The two latter have been carried out on a small scale only, and consist mainly of canalized river, having only 4 and 19 miles of actual canal respectively. They are used by a small class of barge only, not by steam vessels, and are on the verge of becoming derelict. The Marie

system, on the other hand, was carried out on more ambitious lines, and provides an important waterway of which great use is made. The entire length of the system from Rybinsk on the Volga to Petrograd is 644 miles, of which 412 miles consist of navigable rivers, 187 of lateral lake canals, and 45 of locked canals. The route proceeds from Rybinsk in a north-west direction up the River Shekhsna, through the White Lake, and thence up the River Kovja to its highest point above sea level, where a canal section connects it with the River Wytegra, which falls into Lake Onega. The route then turns south-west and makes its way *via* Lake Onega, the River Svir, and Lake Ladoga, to Schlussemburg, whence the Neva flows through Petrograd, only 12 miles distant, into the Gulf of Finland. Thus a complete waterway exists between the Caspian and the Baltic, and at least one commodity, namely, naphtha, makes the entire journey regularly from the one to the other. The minimum depth is 6 ft., and vessels up to 230 ft. long, 28 ft. beam, and 5 ft. 6 in. draught, with a maximum load of about 800 tons, can use the route.

The journey from Rybinsk to Petrograd takes from 16 to 30 days. The principal cargoes transported consist, in addition to naphtha, of grain, ore, and iron. The traffic on the system amounted in 1907 to 1,200,000 tons and increased yearly up to 1910, when it reached 2,000,000 tons. The average cost of transport from Rybinsk to Petrograd was 6½d. per cwt., as compared with 9½d. per cwt. for the rail journey.

A canal system called the "Duke Alexander of Würtemberg" connects the basins of the Volga and the Northern Dvina. It branches off from the Marie system between Rybinsk and the White Lake, and passing through Kulinskoi Lake joins the River Suchona, which in its turn runs into the Northern Dvina at Ustyug Veliki. There are 20 miles of canal and 21 miles of canalized river, situated near the sources of both rivers in the provinces of Novgorod and Vologda. Only small barges use this canal, and there is no steam communication.

The high importance of connecting the Volga basin with other river systems than those already mentioned has led to a number of canal projects, many of them fantastically ambitious. A scheme to connect the Kama with the Siberian rivers Irtysh and Obi, by widening and making navigable the River Iset, was laid before the Imperial Duma in 1913.

The desirability of connecting the Volga and the Don, which are only 40 miles apart between Tsaritsyn and Kalach, has been self-evident ever since trade in the Caspian developed to a marked extent, and various offers have been made to the Russian Government to carry out this idea. The authorities, however, have never been willing to allow private enterprise to undertake work of such national importance, and the physical difficulties presented by the high land lying between the two rivers have been an obstacle to its realization; nevertheless, the project will certainly be carried through some day, either by the route mentioned or by a longer alternative route farther south.

(d) *Railways*

In order to consider the railway system of the Don and Volga basins, it is necessary to regard Moscow as its centre. No important railway begins or ends in the area itself and nearly all the principal railways pass through the country from west to east, radiating from Moscow.

Beginning in the north-east, the main line from Moscow to Archangel passes through the Governments of Vladimir and Yaroslav, touching the towns of Alexandrov, Yaroslav, and Danilov, and continuing to Vologda and Archangel. The distance traversed within the boundaries of the two Governments is about 229 miles. Another line, 273 miles in length, runs from Moscow to Nijni-Novgorod *via* Vladimir and Kovrov. All but about 45 miles of the total mileage lies within the Governments of Vladimir and Nijni-Novgorod. Between these two main lines lie two short connecting lines: (i) from Yaroslav in a south-east direction *via*

Ivanovo to Kovrov on the Moscow-Nijni line, and (ii) from Alexandrov on the Moscow-Archangel line in a north-east direction *via* Ivanovo to Kineshma.

The line from Moscow to Kazan runs due east *via* Murom, Arsamas, Jimiryasevo, and Alatyr. Of its total length of 599 miles, all but about 50 lie within the area of the Don and Volga basins.

The great main route from Moscow to Rostov-on-Don runs in a southerly direction, and from it branch off at different points all the lines running in an easterly direction, which will be subsequently mentioned. The principal junctions are: Ryazan, Ryashk, Koslov, Gryasi, Voronezh, Lisski, and Nikolskaya. This line in its southern section runs through the province of Voronezh and the Don Cossack territory for about 350 miles.

From Ryazan a line runs eastward *via* Troitsk and Simbirsk to Bugulma in the north-east corner of Samara. This line traverses the Governments of Simbirsk and Samara for about 300 miles. At the point where it enters the Government of Simbirsk, a line branches off in a south-east direction *via* Sysran, where it crosses the Volga on the longest railway bridge in Russia, to Samara, continuing thence as part of the great main route *via* Orenburg to Tashkent in Turkestan. This line runs for about 320 miles in the Governments of Simbirsk and Samara. From the town of Samara the main Siberian line runs eastward to Ufa, and thence over the Urals into Asia, traversing Samara for 160 miles.

From Ryashk there is a line *via* Morshansk, Pensa, and Kusnetsk to Sysran, where it joins the line last mentioned, after traversing the Government of Simbirsk for about 50 miles.

From Koslov a railway runs *via* Tambov and Vertunovskaya to Saratov. This line crosses the full width of the Government of Saratov, about 170 miles. From Saratov a line, about 250 miles in length, runs eastward to Uralsk, traversing the Government of Samara; and from Urbach on this stretch another line, about

350 miles long, runs due south *via* Baskunchak to Astrakhan. From Tambov a branch runs in a south-east direction *via* Balashov to Kamishin on the Volga, crossing the Government of Saratov for a distance of about 170 miles.

From Gryasi a railway runs in a south-south-easterly direction *via* Borisogliebsk to Tsaritsyn, traversing the Don Cossack territory for some 200 miles. From Tsaritsyn a railway, which may be considered a continuation of the above, runs in a south-south-westerly direction *via* Ilinskaya and Tikhoretskaya to Novorossiisk on the Black Sea. About 200 miles of this line are in the Government of Astrakhan and the Don territory.

Voronezh is connected with Kursk by a line of 150 miles in length running due west.

Lisski is the starting-point of a line which runs first due east and then north-east, crosses all the lines branching from the main Moscow-Rostov line, and eventually joins the Moscow-Samara line at Rusaenka. This line is a feeder to the lines it crosses, and, although described here as one railway, is rather a series of short connecting branches. Another branch from Lisski runs south-west to Kupyansk and the Donets.

From Nikolskaya a line runs due east to Tsaritsyn, traversing the Don territory for some 210 miles. Nikolskaya also has a branch to the west to Bachmut and the Donets.

Rostov-on-Don, the terminus of the main line which serves as a backbone for the lines so far described, is an important railway centre. A line runs from it due south to the Caucasus, another due west to Taganrog and thence north-west to the Donets coal and iron district.

The State has a strong hold over railway construction and management in Russia. A large proportion of the lines are both constructed and owned by the State, while those that are constructed and worked by private capital usually hold their property on terms which allow the State to buy them out at very short

notice, as has happened fairly frequently of late years. No foreign concessions have been granted in recent times.

The capital of the State railways has been found by a loan policy, a great deal of the stock having been taken up in Paris, London, and Amsterdam; Germany, on the other hand, fought very shy of the security. The share capital of the private railways has been subscribed to a considerable extent in Russia itself; but a large loan capital, mostly guaranteed by the Russian Treasury, has been placed upon the French, British, and Dutch markets. The rate of interest for all the issues mentioned is from 4 to $4\frac{1}{2}$ per cent.

It is generally conceded that the railways of the area, especially those on the east side of the Volga, are not adequate to the traffic needs of the districts. A comparison of the number of lines lying east of a straight line drawn from Archangel through Moscow to a point on the Sea of Azov just west of the Don mouth with those lying to the west of such a line throws up in sharp relief the lack of facilities in the former area. The existence of a large navigable river with tributaries compensates for this to some extent, but the necessity for expansion of the railway system is obvious. The country east of the Volga is worst served. Till recently no bridge, except that at Sysran, crossed the Volga below Kazan, and even now above Kazan there is no bridge until Yaroslav is reached, a distance of over 300 miles.

It is true that the last twenty years have seen considerable railway expansion in Eastern Russia, but this has been rather with a view to exploiting Asiatic Russia than to consolidating local traffic. What has been considered a vital necessity for years still remains only a project—that is, the construction of a series of lines from the rich southern wheat-growing districts in a north-easterly direction to the agriculturally poor provinces, in order to ensure their annual supply of grain. At present, years of heavy surplus in the Ukraine may see an almost starving peasantry in the Volga and trans-Volga provinces.

The new railways sanctioned and in some parts under construction are as follows :—

(1.) A line crossing the Volga at Nijni-Novgorod and running in a north-east direction to a point on the Vologda-Vyatka railway west of Vyatka.

(2.) A line from Arsamas to a point on the existing railway west of Kazan which would cut out the present detour between Moscow and Kazan.

(3.) A line from Kazan eastward to the Urals, finishing at Ekaterinburg.

Of these lines, the first and last have in view long distance traffic and Asiatic connections rather than any improvement of local facilities.

(e) *Posts, Telegraphs, and Telephones*

The Russian Post Office undertakes most of the branches of postal service usual in Europe, including parcel-post, despatch of money through the post and by telegram, and the cash on delivery system. The most notable feature of its routine is the vast quantity of correspondence which is sent by registered post and insured post for greater security, even newspapers being frequently registered. The system of rural delivery is very poor; and in many provinces the *zemstvos* have secured permission to undertake this branch of the service in order to improve the inadequate facilities. A comparison of certain figures with those of the United Kingdom for the year 1912 shows the comparatively limited development reached in Russia:—

| — | United Kingdom. | Russia. |
|----------------------------------|-----------------|------------|
| Expenditure | £24,000,000 | £6,500,000 |
| Letters per head of population.. | 74 | 10 |
| Number of post offices .. | 24,000 | 16,000 |
| Miles of telegraph line .. | 81,000 | 124,000 |

Telephones were first instituted in Russia by private syndicates, usually of Scandinavian origin, which obtained concessions for urban areas. Latterly the State has taken over the provision of this means of communication, but has not been specially active in developing it. Consequently the *zemstvos* in many places have obtained concessions to exploit telephone systems in both urban and rural areas, which they have done with success.

(2) EXTERNAL

(a) Ports

(i) *Accommodation*.—*Taganrog* is the most important port on the Sea of Azov. The actual harbour close to the town is formed by two curved moles 600 yards apart, with an entrance between them 140 yards wide. An inner mole 200 yards in length encloses an area known as the Petrovski basin. There is a dredged channel 12 feet deep and 90 yards wide leading up to the harbour. The quay space is small, and the loading facilities are confined to two steam cranes. The great majority of the shipping using the port comes to anchor in the roads at distances varying from 25 miles to 10 miles from the town, according as the vessel draws the maximum depth of water possible in the Sea of Azov (24 feet) or less. Nearer the town there are from 14 to 18 feet of water. The depth is much affected by wind: a prolonged easterly wind has been known to diminish it by 7 feet. Foreign-going vessels load in the roads from lighters and local steamers, many of which come from Rostov.

Rostov-on-Don is 25 miles from the point where the river reaches the Sea of Azov by a number of mouths. Only two of these mouths are used for navigation—the Egurcha for shipping, and the Merinovoe for raft-floating. A channel $9\frac{1}{2}$ miles long and with a minimum depth of 14 feet has been dredged from the open sea to the Egurcha mouth, and a channel of the same depth has been maintained in the river as far as Rostov. There is a stone quay on the

river front, which is at present 2,800 yards long, and will be 4,300 yards long when completed. Loading facilities are said to be indifferent. An elevator, of 11,200 tons capacity, was completed in 1913. The trade consists of transit from rail or river vessels to lighters or local steamers, on which cargoes are carried to Taganrog roads, there to be loaded for abroad. Less than twenty vessels a year on an average come up to Rostov from foreign ports.

The port of *Astrakhan* is situated in the delta of the Volga, 71 miles from the open Caspian. Owing to the difficulties of navigating the delta in sea-going vessels, the larger incoming steamers, which consist mainly of oil-tank steamers from Baku, discharge their cargoes in a roadstead about 100 miles from Astrakhan town. There is practically a floating town in this roadstead, which is busy for six months of the year. It is provided with a customs house, hospital, telegraph office, provision stores, &c. The tank steamers discharge into shallow - draught steamers, which negotiate the difficult and tortuous delta waters up to Astrakhan, where a second transfer to river barges takes place. The Volga brings down enormous quantities of sand (an average of 100 tons is deposited in fifty days), and the navigation of the delta is dangerous, both on this account and also because of heavy and frequent north-west gales. Smaller steamers make the voyage right up to Astrakhan. The port work in Astrakhan is mainly done in mid-river, and loading facilities are not much in demand.

(ii) *Nature and Volume of Trade.*—The entrances and clearances of vessels at Taganrog in 1913 were as follows:—

| Vessels. | Tonnage. | British Vessels. | Tonnage. |
|----------|----------|------------------|----------|
| 487 | 871,875 | 136 | 271,129 |

British vessels held the first place both in numbers and tonnage, the second and third places being taken by vessels under the Italian and Greek flags.

The imports and exports at Taganrog for the years 1911-13 were as follows :—

| | 1911. | 1912. | 1913. |
|--------------------|-------------|-------------|-------------|
| Imports in tons .. | 14,095 | 15,346 | 16,401 |
| „ „ value .. | £363,500 | £313,700 | £309,200 |
| Exports in tons .. | 1,850,000 | 1,490,000 | 1,939,000 |
| „ „ value .. | £11,532,000 | £10,632,000 | £11,913,000 |

Hides constitute 50-60 per cent. of the imports, tanning materials 10 per cent., fruits, nuts, and dried figs 15-18 per cent. The exports consist almost entirely of cereals, and are composed of 60 per cent. wheat, 25 per cent. barley, and 8 per cent. rye. The remaining 7 per cent. consists chiefly of vegetable oils and oil cakes, also of caviare, which in occasional seasons reaches a high value.

The average annual weight of arrivals at Rostov from 1905 to 1909 was 209,000 tons, and of shipments from that port 113,000 tons. As the bulk of the goods are in transit to or from Taganrog roads, the classes of exports and imports can be inferred from those mentioned under Taganrog.

The port of Astrakhan is mainly concerned in the trans-shipment of naphtha from Baku into river vessels. The entries in 1913 consisted of 5,000,000 tons of freight, the great bulk of which was crude naphtha passing up the river in transit, and raw cotton from Central Asia. Some traffic in Persian fruits, carpets, &c., also in transit, takes place. The goods despatched amounted only to 500,000 tons, and consisted of timber, fish, and some manufactured goods, especially textiles.

(iii) *Adequacy to Economic Needs; Possibilities of Development.*—The port of Taganrog is in serious need of improvement, for its very important trade is

now carried on under unusual difficulties. A certain advance has been made in dredging the channel through the Strait of Kerch to a depth of 24 ft., which enables large vessels to enter the Sea of Azov. As long, however, as the loading of any vessel drawing more than 12 ft. of water must proceed in the open roadstead at varying distances from the harbour, the cost and risk of consigning *via* Taganrog will remain high, and delays will be frequent. There has long been a project for a deep-water channel up to Taganrog and thence up the Don to Rostov, and a survey was in progress in 1913. The most recent improvement has been the installation of a wireless system between the town and a fixed vessel in the roads, by means of which much delay is obviated, as questions of provisions, lighters, coal, stores, &c., can be quickly disposed of.

Rostov-on-Don is much handicapped as a port by the bad channel at the bar and up the river and by the lack of loading facilities. It is considered the most expensive port in Russia. Owing to its importance, improvements have long been promised, but beyond the construction of the quay on the river front, which is only partially completed, nothing has been done.

Astrakhan also suffers from a shallow and dangerous approach owing to the shifting sandbanks in the Volga mouths. The necessity for a deep and well-dredged channel is very urgent, and in 1914 a sum of £364,000 was assigned by the Imperial Treasury for this improvement alone. The avoidance of double trans-shipment of cargoes coming from Caspian ports for up-Volga destinations would prove of enormous benefit to the traffic and increase the value of the port.

From what has been said, it is obvious that not one of the ports in question is equal to the demands put upon it by the trade which it handles at present, and drastic improvements are necessary to bring risks and expenses to a level which will allow of proper expansion of trade.

(b) Shipping Lines

The only regular lines working in the Sea of Azov are two Russian companies, the Russian Steam Navigation Co. and the Volga Don Steamship Co., which run regular passenger and goods services in small steamers between Taganrog and Rostov and other Azov and Black Sea ports. All other traffic is carried in tramp steamers chartered as a rule for single voyages. They arrive mainly in ballast during the grain-shipping season.

Shipping in the Caspian Sea is entirely in the hands of Russian companies. The following figures show the numbers and tonnage of the vessels owned by the various companies:—

| Owners. | No. of steamers. | Net tonnage. |
|---|------------------|--------------|
| Caucasus and Mercury Co. .. | 39 | 16,504 |
| Vostochnoe Co. .. | 34 | 16,935 |
| Nadejda Co. .. | 14 | 7,875 |
| Nobel Bros. .. | 7 | 3,608 |
| Other companies, trading firms, and private owners | 185 | 80,074 |
| Total .. | 279 | 124,996 |

There are also 544 sailing vessels of 113,699 net tons plying on the Caspian.

The Caucasus and Mercury Co. had for some years been receiving an annual subsidy of £30,350, in consideration of a number of round voyages from Astrakhan to certain ports. On the expiration of the contract in 1914, they offered to undertake the same services at the rate of £67,620 per annum. Their offer was not accepted, and the contract was thrown open to tender. Six firms tendered, but no information as to the result is forthcoming.

The lines plying from Astrakhan appear to be equal to the trade offering; in fact, owing to the reduced

shipments of naphtha during the last few years, there has been no tendency on the part of the principal companies to increase their fleets. The necessity for a subsidy where no competition from foreign flags exists also points to a difficulty in providing full cargoes for regular lines.

(c) *Telegraphic and Wireless Communications*

There are no telegraphic cables from any of the ports. The important station of Kerch on the route of the Indo-European Telegraph Co. provides facilities for telegraphing eastward. There is also a cable from Baku under the Caspian to Krasnovodsk, whence land lines run eastward. Other telegraphic communication with foreign countries is conducted by means of the land lines of the Russian Post Office.

There is no wireless communication with foreign countries, but for local purposes a few stations have been set up, particulars of which are given below :—

| Station. | Position. | System in use. | Radius. |
|----------------------|--------------------------|-----------------|---------------|
| | | | <i>Miles.</i> |
| Fort of Alexandrovsk | Eastern Caspian coast .. | Telefunken .. | 160 |
| Petrovsk .. | Daghestan coast .. | „ .. | 160 |
| Astrakhan roads .. | Western Caspian coast .. | „ .. | 110 |
| Taganrog town .. | Sea of Azov .. | „ .. | 170 |
| Taganrog roads .. | Sea of Azov .. | „ .. | 110 |
| Kerch .. | For official use only .. | No information. | |

(B) INDUSTRY

(1) LABOUR

(a) *Supply of Labour; Emigration*

As in many other parts of Russia, there is not in the district under survey the marked distinction

between agricultural and industrial labour which exists in those countries where industry is older and more settled. Semi-annual migrations of labour from country to town and *vice versa* are the rule. Agriculture does not suffer from want of labour, as over 50 per cent. of the land is peasant-owned and worked by the owners and their families; moreover, the people of a commune assist one another at busy periods. Such privately-owned land as requires hired labour attracts it in summer without difficulty from the very large landless peasant class, which is accustomed to take to industry either locally or in the towns for the winter period, to be reckoned for this purpose as six to seven months of the year. Factory industry is accustomed to a shortage of hands in the height of summer and plentiful labour at other times. The only industry which suffers seriously from shortage of labour is that of coal-mining.

For a long period in the nineteenth century there was no emigration from the Don and Volga area; indeed, during the middle of the century, colonies were being established in certain districts east of the Volga, which were at that time virgin soil for agriculture. Immediately after the completion of the Siberian railway, there began a steady stream of emigration in that direction, which continued up to the outbreak of war, though on a diminishing scale after the rush of the first five years. Official figures show that between 1894 and 1912 3,500,000 Russians migrated to Siberia and settled there permanently. These nearly all came from the black soil and steppe regions, a very large proportion being natives of the region of the Volga basin.

There has been no notable movement of Russians from the Don and Volga area to the New World at any time.

(b) *Labour Conditions*

Conditions of climate and the present transition stage of agriculture and industry combine to make the

conditions of labour far less favourable in the Don and Volga area than in most parts of Western Europe, and even than in some more favoured districts of Russia itself. The increased agricultural population can no longer live entirely by the soil, and is forced to make long journeys in search of employment after the pressure of land work in the short summer is over. This means that a large population is virtually homeless all the year round, and is dependent for housing on its employers. Factory towns and villages always contain large barrack-dwellings put up by the factory owners. These were originally intended for males only, the women remaining behind in the villages. Where factory labour, however, is tending to become stabilised, as in Vladimir Government, living quarters arranged in a manner suitable for family life are gradually being established, but the fact that in general labour is migratory militates against good living conditions. Since 1882 the development of factory legislation has been very rapid; nevertheless the results are still considered to be behind those of Western Europe. The inspection districts are said to be much too large for the staff, and evasion of the law by employers is frequent.

Agricultural wages are steadily rising, as is shown by the figures given below, which also show that the average wage in the Don and Volga area is slightly higher than that in Russia generally. The figures refer to the wages paid at harvest time, those for seed time and hay harvest being 15-20 per cent. lower.

Wages for a day's labour in kopecks without food:—

| | 1901-10 average. | | 1914. | |
|------------------|------------------|----------|--------|----------|
| | Man's. | Woman's. | Man's. | Woman's. |
| Don and Volga | 90 | 53 | 110 | 73 |
| Russia generally | 80 | 54 | 102 | 68 |

Industrial wages in Vladimir, Yaroslav, and Kostroma are as a rule about 25 per cent. lower than the average in Russia generally for the same class of labour. In 1910 the average annual wage in Vladimir was 186 roubles, in Kostroma 177, and in Russia generally 244. In considering these figures it must be remembered that a large number of employees, as many as 42 per cent. in Vladimir, live in houses provided by their employers either free or at a rent which is at most 3 per cent. of their wages, and get certain lighting and fuel privileges. The provision of medical attendance and hospital accommodation, as also insurance against sickness and accidents among workmen, is compulsory on the employer.

Russian industry is admittedly founded on plentiful and cheap labour, the other two factors, capital and raw material, being generally dearer than in competing countries. As labour during the last decade has tended to become more stable and coalesce into trades unions, wages and conditions have improved somewhat, and hours do not appear to be excessive on the whole. The conditions of mining labour in Russia, however, are the least satisfactory of any in the industrial world. The mines in the area under survey are entirely situated in the Don Cossack territory, which supplies them with no labour except for haulage on the surface. The Governments of Smolensk, Orel, Kursk, Mohilev, and Simbirsk mainly supply the coal-miners, who are housed in large barracks, and, being a fluctuating population, are difficult to manage. Owing to bad living conditions epidemics are not infrequent. In 1910 an outbreak of cholera reduced the mining population of the Donets basin from 142,000 to 80,000 in a few weeks, as great numbers of those not attacked by the epidemic temporarily quitted the district. Many mining companies have endeavoured by bettering the conditions to keep their labour continuously, but the fact that applications have been recently made for convict labour shows that on the whole the conditions are bad.

(2) AGRICULTURE

(a) Products of Commercial Value

The amount of the produce of agriculture, together with the acreage under all the principal crops, is given in the Appendix (pp. 105-6), the figures being taken mainly from the year-book issued by the Russian Ministry of Agriculture in 1916. The conditions in different parts of the area are very diverse, partly owing to variations of soil and climate and to some extent owing to differing systems of land-tenure.

The important cereals, rye, wheat, barley, and oats come first under consideration.

Returns furnished for the period 1895-1912 show that the mean cereal harvest of the Don and Volga basins was 18 per cent. of that of the whole of European Russia. Statistics collected for the same period establish an interesting comparison as regards the degree of stability in the cereal harvest. In the Don area the mean annual deviation from a normal harvest figure reaches as high a percentage as 35.4; in the Lower Volga it is 30 per cent., and in the Upper Volga 22 per cent. In the Ukraine generally it is only 17 per cent., in the agricultural centre 15 per cent., and in all other agricultural units still lower. The high degree of instability in the Don and Volga area is caused partly by uncertain climatic conditions, but in view of the low figure of yield (see p. 69) and of the fact that many districts which are not favoured by soil or climate have a far greater degree of stability, it may be assumed that the farming method on the whole leaves much to be desired.

The principal grain-growing districts are the Don Cossack territory, Voronezh, Kazan, Samara, Saratov, and Simbirsk, in all of which there is more or less black soil. Nijni-Novgorod, Kostroma, Vladimir and Yaroslav have no black soil, and produce considerably less in the aggregate and per acre. Astrakhan has little land suitable to agriculture of any kind, and shows negligible returns under all heads.

Rye has the greatest absolute yield, and in most governments is the principal crop. It is the staple breadstuff of the masses, and the great bulk of the crop is absorbed in Russia. In very good years an export takes place.

Wheat runs rye close in absolute yield, but the crop is very unevenly distributed. The principal production is in the Don Cossack territory, where the best black soil favours it, and in Samara, which has also a large area of black soil, though of inferior quality. In the latter Government the existence of exceptionally large private estates, which grow for export, accounts for the predominance of wheat.

Barley is a much smaller crop; 36 per cent. comes from the Don Cossack territory, 10 per cent. from Voronezh, 5·7 per cent. from Kazan, Samara, and Kostroma, and the remainder from other Governments in uneven ratio. Barley is exported in fair quantities after the home demand is supplied.

Oats are grown in fairly even quantities over the area, but the acreage and crop are somewhat larger in Kazan than in any other government. The export of oats reaches about one-tenth of the total crop.

Millet is grown for home consumption in all Governments except Yaroslav and Kostroma. Saratov and Voronezh raise the largest crops.

Buckwheat is grown in Samara, Voronezh, Kazan, Vladimir, Nijni-Novgorod, and Simbirsk. The first two named contribute over 60 per cent. of the total. The crop is grown for home consumption.

Maize is grown only in the Don Cossack territory, and the amount is insignificant. The area under maize in 1914 was 93,400 acres, and the crop weighed 27,000 tons.

The remaining crops occupy a very small area in comparison with cereals.

Potatoes are grown on about a million acres in Simbirsk, on about half that area in Kazan, and on about a million acres in all in the remaining Governments. They are used in great quantities for the

distillation of alcohol, especially in Simbirsk and Saratov.

Peas, beans, and lentils are grown on about 150,000 acres in each of the Governments of Saratov, Kazan, and Nijni-Novgorod, and on smaller areas in the other Governments.

Flax and hemp are grown on about 100,000 acres in each of the Governments of Vladimir, Yaroslav, Kostroma, and Nijni-Novgorod, where the clayey and sandy soils and the climate favour these crops. All the remaining Governments grow some, but in smaller quantities.

A large *hay* crop is harvested in Samara and the Don Cossack territory, which are great horse and cattle-breeding Governments. Astrakhan also raises a good crop. The following table shows the crop in the various Governments :—

| Government. | Average 1901-10. | Year 1914. |
|--------------------------|------------------|--------------|
| | <i>Tons.</i> | <i>Tons.</i> |
| Astrakhan | 732,000 | 791,000 |
| Don Cossack territory .. | 1,235,000 | 1,127,000 |
| Kazan | 495,000 | 416,000 |
| Kostroma | 610,000 | 429,000 |
| Nijni-Novgorod | 396,000 | 322,000 |
| Samara | 1,205,000 | 1,263,000 |
| Saratov | 359,000 | 215,000 |
| Simbirsk | 242,000 | 187,000 |
| Vladimir | 593,000 | 409,000 |
| Voronezh | 500,000 | 376,000 |
| Yaroslav | 663,000 | 455,000 |

The proportion of agricultural land under pasture is estimated as follows :—Mid-Volga Governments, 11·8 per cent. ; Lower Volga Governments, 33 per cent. (this includes the vast area of permanent pasture in Astrakhan ranches by the Kalmuck and Kirghis) ; industrial Governments, 18 per cent. ; Don Cossack territory, 22 per cent.

Oil-yielding plants are raised principally in Voronezh, which in 1914 harvested 196,000 tons of

sunflower seed and 2,243 tons of colza seed. The sunflower is also cultivated in Saratov, where 92,000 tons of seed were produced in 1914, and in the Don Cossack territory, where the crop for that year was 33,000 tons. A great quantity of sunflower seed is eaten raw by peasants and workpeople.

Sugar-beet is grown exclusively in Voronezh. The average area sown in the years 1901-10 was 28,700 acres, and the crop realized 145,000 tons. Figures for 1914 show a heavy increase, an acreage of 47,700 yielding a crop of 286,500 tons.

Hops are grown in Kostroma. The yield in 1914 was 950 tons.

Viticulture has long been established in the Don Cossack territory, wine having been made there from the earliest historic times. The keen eye of Peter the Great noted that the soil on the banks of the Don and the shores of the Sea of Azov resembled that on the banks of the Rhine, and under his ægis the cultivation of grape vines received a strong impulse. In 1910 some 21,500 acres were under vines, mainly on the banks of the Don, Donets, and Aksai rivers. The yield of grapes was about 8,000 tons. The principal vineyards of repute are situated at Razdorsk. Kumschatsk, and Tsimlyansk. The yield of wine in 1914 was 310,500 gallons. In general the wine does not travel far afield, but is marketed and consumed locally.

Tobacco is grown in Voronezh and Samara. The quality is very coarse, and only provides what is known as *makhorka*, used by the peasants for smoking and as snuff. Voronezh harvested an average of 1,877 tons from 1901-10 and 3,097 tons in 1914. The corresponding figures for Samara were 2,220 and 1,290 respectively. Some very small results were obtained in Simbirsk and Saratov, but in the other Governments tobacco has quite died out as a crop.

The above account covers all the field crops in the area which receive official mention; any others are of very small account.

Vegetable and fruit culture on industrial lines are confined to a few Governments. In Simbirsk there are 18,000 acres of kitchen-garden land, cultivated by Mordvas, who are specially clever at this work. In Vladimir, in the neighbourhood of the factory-towns, kitchen-gardening is well developed and high rents are secured from the cultivators. Cucumbers and cabbages, which are both great articles in the Russian dietary, are principally raised. Fruit-gardening prospers in Saratov on the right bank of the Volga, where German colonists give much attention to it. Kazan has a great many fruit orchards, some of very large size, containing several thousand trees. Apples, pears, plums, cherries, and melons are principally grown. The fruit orchards of Vladimir are also noted, especially for cherries, which are preserved in large quantities. In Voronezh fruit-growing on industrial lines is increasing, but is as yet of only moderate importance.

The *live-stock* branch of agriculture presents many interesting features. The Volga basin several decades back was largely a pastoral country, but of recent years cultivation has gradually diminished the pastoral area. The following table shows the head of live-stock in 1913:—

| Government. | Horses. | Horned Cattle. | Sheep. | Pigs. |
|-----------------------|-----------|----------------|------------|-----------|
| Astrakhan .. | 400,000 | 1,090,000 | 2,600,000 | 34,000 |
| Don Cossack territory | 918,000 | 2,152,000 | 1,727,000 | 527,000 |
| Kazan .. | 449,000 | 519,000 | 1,256,000 | 183,000 |
| Kostroma .. | 257,000 | 423,000 | 420,000 | 62,000 |
| Nijni-Novgorod .. | 241,000 | 322,000 | 406,000 | 85,000 |
| Samara .. | 979,000 | 929,000 | 1,437,000 | 189,000 |
| Saratov .. | 612,000 | 811,000 | 1,900,000 | 131,000 |
| Simbirsk .. | 303,000 | 321,000 | 751,000 | 86,000 |
| Vladimir .. | 215,000 | 390,000 | 299,000 | 79,000 |
| Voronezh .. | 582,000 | 781,000 | 1,403,000 | 228,000 |
| Yaroslav .. | 187,000 | 362,000 | 139,000 | 17,000 |
| | 5,143,000 | 8,100,000 | 12,338,000 | 1,621,000 |

In connection with the figures for sheep, it should be noted that out of the total number in Nijni-Novgorod 30,000 were fine-woolled sheep, in Astrakhan 216,000, in the Don Cossack territory 308,500, and in Voronezh 61,000.

As compared with the period 1905-1908, live-stock generally shows an increase in Saratov, Simbirsk, and Astrakhan, and a decrease in Nijni-Novgorod, Yaroslavl, Vladimir, and the Don Cossack territory. In proportion to the total quantity of live-stock in European Russia, the Don and Volga area is rich for its extent. It contains 22 per cent. of all the horses, 25 per cent. of the horned cattle, 30 per cent. of the sheep, and 9 per cent. of the pigs in the country.

Horses.—Samara and the Don Cossack territory have the largest stock of horses, close upon a million head each. These two Governments, together with Saratov, Simbirsk, and Astrakhan, are among the greatest horse-breeding centres in Russia. The bulk of the horses are bred for agricultural purposes, and have no special characteristics of interest.

Three breeds of steppe horses, the Don Cossack, Kalmuck, and Kirghis, are peculiar to their districts, and their improvement has been sought for some time past. The Don Cossack horse, originally a hook-nose breed of steppe horse, has recently been frequently crossed with English half-breds and thoroughbreds. A hardy, useful cavalry remount has thus been evolved, and 9,000 horses are taken yearly for military purposes from this source. There are in the province 127 *stanitsas*, or rearing centres, which have 30,700 mares and 1,860 half-bred stallions. There are in addition 145 stud-farms, with 22,000 mares and 1,600 half-bred stallions. Every farm in the Solski district, where breeding principally goes on, is bound to deliver annually from eight to fifteen remounts, at a maximum price of £17-£18 per horse.

The Kalmuck and Kirghis horses are bred on the plains of Astrakhan. They are small and ugly, but hardy, light, and fast. Crossed with good riding

breeds, they make excellent remounts. The nomad Kalmuck are said to be possessed of 30,000 mares. They keep their cattle and horses on the open steppe all the year round, and in severe winters their losses are serious.

In *horned cattle* the Don Cossack territory and Astrakhan easily lead the way, Samara, Voronezh, and Saratov following a long way behind. The Cossack cattle are mainly workers, and are used from 4 to 10 years of age for agricultural work, being then fattened for slaughter. Peasant farms among the Cossacks average eight head each. The Kalmuck cattle raised in Astrakhan west of the Volga are not suited for work, but are hardy and mature early for meat. The Kirghis beast is also a quick maturer and makes excellent beef; it is in addition a good draught animal.

Sheep.—Astrakhan has by far the largest number of sheep, Saratov, Don Cossack territory, Samara, Voronezh, and Kazan following next in order. The overwhelming majority of the sheep are of a coarse-woolled breed, known as the "Don" sheep, which has a low fleece value and not a very high slaughter value. The principal merino breeds are Electoral, Rambouillet, Negretti, and Infantado, but their numbers are decreasing everywhere. In Nijni-Novgorod there is a fine-woolled sheep known as the "Romanoff" breed.

Pigs are a small item, except in the Don Cossack territory, which in 1913 had 500,000 head out of 1,600,000 in the whole area. An improvement in the breed of pigs has been effected by the introduction of Berkshire stock.

Camels are bred to a considerable extent in Samara and Astrakhan as draught animals. There were 389,000 head in European Russia in 1912, the great bulk of which appear to have been in the Don and Volga area.

Poultry-breeding is confined to one or two special areas. Kazan and Simbirsk have a large egg trade, and foreign agents have an organization for securing

the supply, which is shipped abroad to a great extent. The Governments of Yaroslav, Kostroma, and Vladimir have an extensive poultry-fattening industry, which centres at Rostov in Yaroslav. The poultry industry is also well established in Voronezh, Simbirsk, and part of Nijni-Novgorod.

(b) Methods of Cultivation

Over a large portion of the Don and Volga area the three-field system of agriculture is practised, that is to say, the land is under a continuous rotation of bread-crops, with one fallow year in three. This system has little to recommend it, as it is exhausting to the soil, and, combined as it often is with a lack of artificial fertilization, represents that form of farming which necessity forces upon the peasant owner, whose holding is too small to allow him to practise a wider rotation so long as he is dependent upon his own produce for a living. The vicious circle is completed by the fact that the very land cultivated on this system is that which is in other respects poorly farmed, owing partly to the poverty and partly to the incapacity of the peasant. Although principally a peasant method, the three-field system, or at any rate a very exhausting rotation, is also in vogue with some private owners. On the Lower Volga, however, in the southern part of Saratov and the northern part of Samara, where large private estates prevail, a wide system of rotation with grass crops and the aid of artificial manure is practised. These lands raise more sheep and cattle, and the productivity of the land is fairly well maintained. The Don Cossacks are still somewhat primitive in their farming.

Part of the Don and Volga area is fortunate enough to be in the black earth region, which is naturally the most fertile soil on the globe. In Russia the belt of black earth is at its widest and best in the region to the south-west of the Don and Volga, known as the Ukraine, but the belt continues in an east-north-east

direction, and, interspersed with other soils, across the Volga, in places almost up to the Urals. The Don Cossack territory and Voronezh Government are all black earth, Saratov and Kazan mainly so. Samara has black earth in the north, clayey and sandy soils in the south. Simbirsk has some black earth interspersed with peaty and sandy soils. Nijni-Novgorod, Vladimir, Yaroslav and Kostroma are outside the black earth area, and their soils, consisting of clay, sand and peat, are in general of low fertility. Astrakhan, with its clayey and sandy soils and its large areas of salt desert, is also of low agricultural value. The black earth is lightly ploughed, horses being used, but in the other districts, which need very heavy cultivation, cattle are used for the weighty ploughs.

In general, even where other conditions are equal, the privately-owned land is more productive than that owned by the peasants for financial reasons, as the peasant owner under the commune has found the struggle increasingly difficult (see p. 73), and his resources in cattle and free capital ever dwindling. The backwardness of agricultural methods is shown by the yield of breadstuffs per *desyatine* (2·7 acres), which is 53 *puds* (1 *pud* = 36·11 lb.) in Kazan, Voronezh, and Simbirsk, and only 41 *puds* in Saratov, Samara, and the Don territory. In spite of the fact that these provinces are favoured by being almost entirely in the black earth region, the yield of 41 *puds* is the lowest in Europe.

(c) Forestry

The areas under forest and the incidence of ownership are given in the following table:—

| Government. | Area under timber. | State. | Appanage. | Church. | Peasants. | Private owners. |
|--------------------------|--------------------|------------------|------------------|------------------|------------------|------------------|
| | <i>Acres.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> |
| Astrakhan | 510,000 | 65 | — | — | 28 | 7 |
| Don Cossack territory .. | 675,000 | — | — | 13 | 79 | 8 |
| Kazan | 4,590,000 | 76 | 2 | 1 | 7 | 14 |
| Kostroma | 12,779,000 | 30 | 10 | 1 | 17 | 42 |
| Nijni-Novgorod | 4,827,000 | 30 | 7 | 4 | 10 | 49 |
| Samara | 2,816,000 | 32 | 20 | 1 | 22 | 25 |
| Saratov | 2,392,000 | 17 | 5 | 3 | 37 | 38 |
| Simbirsk | 3,250,000 | 11 | 55 | 0·5 | 3·5 | 30 |
| Vladimir | 3,153,000 | 17 | 11 | — | 12 | 60 |
| Voronezh | 1,185,000 | 23 | 0·5 | 1·5 | 49 | 26 |
| Yaroslav | 2,521,000 | 26 | — | 2 | 4 | 68 |

The total area may be roughly divided into three districts: (1) the upper reaches of the Volga and its affluents, which are rich in forests and which produce the principal building timber, such as pine and spruce; (2) the region of the middle course of the Volga, which is less well supplied and principally raises deciduous trees; (3) the lower reaches of the Volga and the Don Cossack territory, a very large area of almost treeless country. The first-mentioned district comprises the Governments of Vladimir, Yaroslav, Nijni-Novgorod, Kostroma, and Kazan. Vladimir has 28 per cent. of its area under forest, the others 33, 40, 61, and 33 per cent. respectively. The pine, birch, spruce, silver fir, oak, ash, and maple are the principal timber trees. The timber is floated down the Volga and its tributaries

in huge rafts, which require some scores of men to manage their navigation. The second district comprises Simbirsk, Samara, and Saratov, the first of which has 33 per cent. of its area under timber, the two latter 5 and 10 per cent. respectively. The oak, ash, elm, maple, lime, poplar, and aspen flourish here, the pine, birch and spruce being absent. The third region, comprising the Governments of Voronezh and Astrakhan and the territory of the Don Cossacks, is, with the exception of the northern portion of Voronezh, almost a treeless region. The latter Government has 6 per cent. of forest land, the Don Cossack territory 2 per cent., and Astrakhan $1\frac{1}{4}$ per cent.

The nineteenth century saw great colonizing activity in the region of the middle course of the Volga, with a consequent rapid reduction in the forest area. The resultant drying up of soil and climate called for legislation to arrest the depletion. In 1888 the State took forests generally under its protection, and all areas bearing marketable timber were scheduled and the exploitation regulated. The general principle is that fuel timber must be at least 40 years old at the time of felling and building timber 80 years old. A forestry staff, with inspectors and guards, has been established, but good authorities state that the law is much evaded, and that the process of depletion goes on still, if not so recklessly as formerly.

(d) *Land Tenure*

The ownership of land falls under three heads:— (1) Peasant-property, assigned to this class in 1861 when serfdom was abolished, and universally described as *nadyel*; (2) land privately owned, mainly by the nobility, but in increasing quantities by successful and well-to-do peasants, merchants, and speculators; (3)

land owned by the State, the Imperial family, and the Orthodox Church and its monasteries.

The following table shows the percentage of each type of ownership in the various Governments:—

| Government. | Area in thousand <i>desyatines</i> . | Nadyel. | Private. | State, Church, &c. |
|-----------------------|--|------------------|------------------|--------------------------|
| | | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> |
| Astrakhan | 3,527 | 66·8 | 5·6 | 27·6 |
| Don Cossack territory | 14,075 | 70·0 | 16·5 | 13·5 |
| Kazan | 5,499 | 53·3 | 13·4 | 28·3 |
| Kostroma | 7,269 | 29·4 | 42·5 | 28·1 |
| Nijni-Novgorod . | 4,441 | 44·4 | 33·2 | 22·4 |
| Samara | 13,017 | 51·6 | 27·2 | 21·2 |
| Saratov | 6,799 | 49·2 | 38·7 | 12·1 |
| Simbirsk | 3,999 | 41·5 | 27·3 | 31·2 |
| Vladimir | 4,152 | 52·1 | 34·6 | 13·3 |
| Voronezh | 5,603 | 66·9 | 28·1 | 5·0 |
| Yaroslav | 3,069 | 46·3 | 43·2 | 10·5 |
| Average | .. | 52·4 | 28·2 | 19·4 |

The *nadyel* constitutes over 50 per cent. of the whole available agricultural land, and is from the point of view of land-tenure the most interesting category. The law freeing the serfs in 1861 provided for the wants of the newly freed class by taking a proportion from the lands of the nobility and handing it over to the peasants on a deferred purchase system. Very little of the land was transferred to individuals, but almost all to communes, known as *mirs*, whose business it was to divide it up among the "souls," that is, adult males composing the commune. A system of periodical redistribution within the commune was provided for, but the law, broadly speaking, failed to provide for the expansion of population which took place, with the result that communal ownership had to fight against conditions gradually growing more adverse as time

went on. At each redistribution, owing to the expanding population, the amount of land per soul available became less, and from the very beginning it was apparent that the peasants were unable to keep up their purchase payments, which were eventually cancelled wholesale to prevent the complete bankruptcy of many communes. The system also was gradually but surely exhausting the fertility of the soil, as the sheer necessity of feeding himself and his family and paying his taxes forced the peasant to adopt a bad method of agriculture. All these considerations led to the carrying of a sweeping legislative reform in 1906, generally known as the Stolypin Land Law, which definitely abandoned the commune principle and sought to transform peasant-holdings into individual property. The administration of this change has been energetically pushed, and some £10,000,000 of State money had been advanced by 1913 for the purpose of effecting the change of method of ownership and improving the type of agriculture. Nevertheless, an acute land-hunger still existed among the peasants, as the emigration to Siberia in recent years plainly shows.

The privately-owned land was, up to 1861, almost all in the hands of the old landed nobility of Russia. The changes brought about by the abolition of serfdom were not necessarily to the disadvantage of this class, but, owing to their failure on the whole to grapple with the altered situation, they have in the intervening period parted with a good deal more of their land, and what remains is in a great number of cases heavily mortgaged. The purchasers of the land sold have been partly successful peasants, who have risen above their fellows, partly merchants and other urban people, who have seen fit to invest their accumulated capital in land for pleasure or profit.

The third category calls for small comment, being the patrimony of special classes of the community, handed over to them to provide them with income for the upkeep of their position, or for the maintenance of religious institutions.

In the Government of Astrakhan 37,000,000 acres, or about 63 per cent. of the total area, being unsuited to agriculture, has been assigned to the wandering Kal-muck and Kirghis, who ranch upon it.

In the Governments of Samara and Saratov over 4,000,000 acres are owned by colonies of Germans, descendants of immigrants who settled in these districts at the end of the eighteenth century and were granted free land and numerous privileges.

(3) FISHERIES

The rivers of the Don and Volga basins have always been extremely rich in fish, but their resources have been heavily drawn upon, especially during the nineteenth century, and the tendency has been for industrial fishery to move further down the rivers and concentrate in the lower reaches. In the case of the Volga and the Don themselves the fisheries of the affluents and upper reaches have long ceased to have any industrial importance, while the activity lower down has been intensified and the value of the catch increased in the aggregate.

The fisheries of the lower Volga and its estuary are among the most valuable in the world, and from Saratov to the Caspian the riparian population are engaged in fishing in an increasing ratio as the river approaches the sea. Originally the industry concerned itself almost exclusively with the fish of the sturgeon species, known locally as "red" fish, of which there are four varieties, the *beluga*, the *osetr*, the stellated sturgeon, and the sterlet. The ruthless destruction of these species in the nineteenth century, which took place as demand grew and proper regulation and preservation of the fisheries lagged behind, led to a serious reduction of the stock and a corresponding rise in price. Consequently other species, with which the river teems, but which were formerly of little market value, began to be fished for, and now form the substantial part of the

total catch. These are all known as "white" fish. Among the most important are roach, perch-pike or pickerel, bream, carp, knife-fish, pike, lamprey, and Caspian herring. The total annual catch of recent years has averaged about 320,000 tons, valued at over £3,000,000.

The price of both red and white fish is continually rising. The bulk of the catch is preserved on the spot, and eventually despatched to distant markets. Besides the actual fish, a number of by-products of great value are drawn from the industry. Caviare is made from the roe of a great number of fish, and commands a high price in all the great cities of Europe. The caviare of the *beluga* sturgeon fetches about 22s. per lb. at Astrakhan, that of other red fish somewhat less. The caviare made from white fish is sold for about 6d. per lb., and provides a cheap luxury for the working-classes. Isinglass, made from the bladder of the *beluga* sturgeon, *balik*, or dried sturgeon-back, and fish oil extracted from the Caspian herring, of which over 4,000 tons are caught annually, are other by-products of high importance.

Some 40,000 craft and over 100,000 hands are permanently engaged in fishing in the Volga delta and off the Caspian shore near the mouths of the river. From the delta up to Saratov a similar number of hands are employed. 40,000 workers are engaged in the preserving branch of the industry, also temporary hands, who appear in the height of the season and who consist largely of women and children. There are three annual campaigns—the "spring" campaign, from March 1 to May 15; the "hot" campaign, from July 15 to August 15; and the "autumn" campaign, from August 15 to December 6. Piece-workers earn 20-30 roubles per campaign, including board and lodging. Women workers on shore get 19-20 roubles, men 2-5 roubles more. The hours are long, averaging 15 per day in the autumn season. The organizations for carrying on the fisheries are generally *artels*, or

co-operative organizations of workers peculiar to Russia, conducted on a non-capitalistic basis. They vary in size and extent from those formed by the smallest number able to work a fishing-stand to large multiple concerns owning fleets of boats and working with a large staff. Capitalist syndicates also work in the industry, especially in the preserving branch, for which they buy up the catch of the smaller *artels*.

The fisheries are owned for the most part by various organizations, including the State (which has 144 reserves), municipalities, monasteries, and syndicates, while some are the property of private individuals. They are leased by agreements to the *artels* and fishing companies. The largest single reserve covers 78,500 acres.

The supervision of the fisheries employs a large staff engaged by the State Fisheries Commission. Their principal duties are to see that the close time (May 15 to July 15) is observed; that the fishing-stands are at least $1\frac{1}{2}$ miles apart, as prescribed by law; and that destructive methods of fishing and the capture of immature fish are prevented as far as possible. They are also responsible for keeping clear a large area at the navigable mouth of the Volga, which is buoyed for navigation, and generally for preventing poaching and trespassing.

The second important fishing area is that of the lower Don and the waters adjacent to the mouths of the river in the Sea of Azov. These fishing grounds are very ancient, and have always been of great value and importance. The slight salinity of the Sea of Azov enables river-bred fish to live permanently in its waters, and there is abundance of organic matter for the nourishment of fish life.

The varieties of fish do not differ greatly from those of the Volga, but are not so numerous. The sturgeon species is represented by the *beluga*, which is rare, and the *osetr* and stellated sturgeon. The white fish of most importance are the perch-pike or pickerel, bream,

carp, shad, and knife-fish. The average value of the catch for the years 1910-1914 was £100,000.

The ownership and regulation of the fisheries have been a source of violent dispute in comparatively recent times. The Don Cossacks, who inhabit the region, claimed absolute rights over the industry, and liberty to exploit it as they chose. With great difficulty the Fisheries Commission procured a settlement of the ownership questions, and secured the observance of close times to prevent the rapid destruction of stock. The close periods are March 15 to April 15, May 1 to June 15, October 1 to 7, December 25 to January 2, and all Sundays and legal holidays. The institution of these, together with the permanent closing of a large area at the mouths of the Don, has led to a remarkable increase in the stock of fish. The industry is carried on by large syndicates employing hired labour.

(4) MINERALS

The Don and Volga basins are not on the whole rich in minerals, except in the Don Cossack territory, where the eastern section of the rich Donets coalfield is situated. Iron, salt, and asphalt are worked, and a fair amount of limestone is quarried.

The total production of *coal* in 1910, which was slightly below normal, was 6,000,000 tons. The Don portion of the field is divided into four districts: (1) the Voronezh-Don district, which in 1910 had an output of 1,900,000 tons, of which 1,700,000 were anthracite; (2) the Makievsk district, which had an output of 718,000 tons, all bituminous coal; (3) the Kalmiusk district, which turned out 1,804,000 tons, all bituminous coal; (4) the Taganrog-Khrustalsk district, which turned out 1,600,000 tons in equal proportions of anthracite and bituminous coal. The Voronezh-Don district produced no coke, but the other three districts

produced 746,000 tons, of which the bulk was made in the Taganrog-Khrustalsk district. The number of workmen employed was 52,519, of whom 35,739 were underground workers and 16,780 surface workers. General figures for Russian coal mining in the Donets field show that the output per head per month is 12 tons. In Austria the corresponding output is 17 tons, and in Great Britain 23 tons.

Iron ore is found in the Governments of Nijni-Novgorod and Vladimir, the former of which has nine mines and the latter two. The ore is of poor quality, containing less than 50 per cent. pure iron, and the output also is small—71,600 tons in 1910, valued at £30,300. The total production of Russia in the same year was 5,600,000 tons.

There are numerous *salt* lake deposits in the Government of Astrakhan, the two largest of which are at Baskunchak and Elton. The output in 1910 was 412,000 tons. All the workings are State property, under the care of the Ministry of Agriculture, and are leased to syndicates.

Asphalt is found near Sysran on the right bank of the Volga. Six quarries had an output of 23,500 tons in 1910. The deposit is rich in bitumen, containing 30·5 per cent.

(5) MANUFACTURES

The manufacturing industry of the Don and Volga basins falls into two classes, factory industry and *kustarni* or peasant industry. It is worthy of special notice that in extent and value the latter is probably greater than the former, which is of comparatively recent growth, especially in the provinces colonized in the nineteenth century. The following table¹ shows

¹ From Annual Statistics (1912), issued by the Council of Representatives of Commerce and Industry.

the extent of factory industry in each government for the years 1906 and 1910 :—

| Government. | No. of establish- ments. | No. of workers. | No. of establish- ments. | No. of workers. |
|-----------------------|--------------------------------|--------------------|--------------------------------|--------------------|
| | 1906. | | 1910. | |
| Astrakhan | 221 | 10,659 | 143 | 6,947 |
| Don Cossack territory | 188 | 15,860 | 239 | 17,240 |
| Kazan | 157 | 14,450 | 164 | 14,416 |
| Kostroma | 219 | 75,481 | 234 | 87,755 |
| Nijni-Novgorod .. | 312 | 26,109 | 249 | 26,489 |
| Samara | 165 | 9,848 | 197 | 10,970 |
| Saratov | 261 | 20,038 | 283 | 23,112 |
| Simbirsk | 133 | 14,104 | 176 | 14,729 |
| Vladimir | 345 | 167,729 | 399 | 194,154 |
| Voronezh | 158 | 9,942 | 148 | 7,638 |
| Yaroslav | 184 | 32,638 | 190 | 34,863 |

In Astrakhan, the Don Cossack territory, Kazan, Nijni-Novgorod, Samara, and Simbirsk, most of the factories are small, but in some of the other governments there are works of considerable size. In 1910 Vladimir had more than 50 which employed 1,000 workers each, Yaroslav had 5 employing between them 18,037 workers, while in Kostroma 30 employed 60,568 workers. Though in Nijni-Novgorod most of the works are small, there were in 1910 2 large ones employing 11,328 workers, and in Simbirsk also there were 2 with over 1,200 workers each. Saratov had several factories of medium size and 3 large ones.

The principal centres of manufacture are in the Governments of Vladimir, Yaroslav, Kostroma, and Simbirsk, where the textile industries are predominant. In the other governments manufacturing industry is chiefly absorbed in the working of animal products, such as tanning, tallow-making, and soap-boiling.

Cotton-spinning, weaving, and dyeing are centred principally in Vladimir, which ranks second only to Moscow in these industries. The mills are fully up-to-

date in method. The article produced is generally of a coarse type, the finer kinds not being spun. The town of Ivanovo-Vosnesensk has the largest output, 17 factories being at work there, most of which use both spinning and weaving machinery and have their own dye-houses. Other centres of the industry are Pereyaslav, Zalesk, and Shuya. Jurievets-Povolgsk and Kineshma, in Kostroma Government, and Yaroslav are also centres of cotton manufacture. The linen industry has its centres in the same Governments, and frequently in the same towns. Vladimir, Kostroma, and Yaroslav take rank, in the order named, in flax-spinning and linen weaving. The following tables give details of the cotton and linen industries :—

COTTON SPINNING AND WEAVING, 1910.

| Government. | No. of factories. | | No. of spindles. | Raw material. | | Product. | |
|--------------------------|-------------------|----------|------------------|---------------|--------------|----------|--------|
| | Spinning. | Weaving. | | Russian. | Foreign. | Yarn. | Cloth. |
| | | | | <i>Tons.</i> | <i>Tons.</i> | | |
| Vladimir ¹ .. | 22 | 102 | 1,470,000 | 38,000 | 26,000 | 59,000 | 83,000 |
| Kostroma ² .. | 12 | 34 | 672,000 | 21,000 | 10,000 | 28,000 | 36,000 |
| Yaroslav ³ .. | 3 | 1 | 375,000 | 15,000 | 4,000 | 17,000 | 2,400 |

¹ 18 per cent. of total production of Empire of yarn, 30 per cent. of cloth.

² 3 per cent. of total production of Empire of yarn, 14 per cent. of cloth.

³ 5 per cent. of total production of Empire of yarn, 0.9 per cent. of cloth.

LINEN.

| Government. | Spindles. | Looms. |
|------------------|-----------|--------|
| Vladimir | 100,239 | 3,293 |
| Kostroma | 113,801 | 4,919 |
| Yaroslav | 50,064 | 1,780 |
| All Russia | 408,693 | 15,424 |

No. of Mills.

| | | |
|-------------|-------------------------------|---------------------------|
| Vladimir .. | 25 flax, hemp, and jute mills | 3 dye and finishing works |
| Kostroma .. | 20 " " " | 4 " " " |
| Yaroslav .. | 5 " " " | — " " " |

The Government of Simbirsk is engaged in the woollen industry. The principal production is coarse cloth made from the wool of the native sheep, and the output is used for army purposes to a considerable extent. Merino wool is not much manufactured. The town of Simbirsk has eleven mills. Rumyantsev, in the district of Karsun, is another centre of activity.

A considerable silk-weaving industry, which draws its raw material from abroad, is established in Vladimir, where there are ninety-eight factories, mostly of small dimensions. The articles produced are mainly for peasant use, and consist of silk shawls and handkerchiefs. Mixed cotton and silk piece-goods are also produced.

Industries founded on the working of animal products are distributed over the area generally. Tanneries occupy the first place, every large centre of population having one or more. The refining of animal fats and the production of tallow, candles, and soap are particularly centred in Kazan and Rostov-on-Don. The large works of Krestovnikov in Kazan employ 2,000 hands, and Kazan soap is sold all over Russia and Asia.

Industries connected with and dependent on agriculture naturally occupy a prominent place. Of these flour-milling is the most important, as will be seen from the following table:—

| Government. | Number of mills. | Turn-out of flour in thousand <i>puds</i> . |
|-----------------------|------------------|--|
| Astrakhan .. | 436 | 2,435 |
| Don Cossack territory | 3,604 | 34,315 |
| Kazan | 4,061 | 26,655 |
| Kostroma | 2,319 | 10,213 |
| Nijni-Novgorod .. | 2,554 | 41,630 |
| Samara | 4,333 | 65,280 |
| Saratov | 2,364 | 79,400 |
| Simbirsk | 2,292 | 26,000 |
| Vladimir | 1,265 | 9,851 |
| Voronezh | 10,277 | 48,673 |
| Yaroslav | 1,333 | 17,635 |

A statement prepared by the late Minister of Finance, M. de Witte, showed that 40 per cent. of all the milling in European Russia was done in the Volga region.

Distilling is carried on partly as an adjunct to farming and partly in urban factories. Industrial alcohol distilled from potatoes forms the chief item of production, but a certain quantity is distilled from grain. The Don Cossack territory produces only grain spirit. The numbers of distilleries in each province in 1913-1914 were as follows:—

| Government. | No. |
|-----------------------------|-----|
| Don Cossack territory | 5 |
| Kazan | 21 |
| Kostroma | 11 |
| Nijni-Novgorod | 18 |
| Samara | 20 |
| Saratov | 41 |
| Simbirsk | 71 |
| Vladimir | 8 |
| Voronezh | 35 |
| Yaroslav | 6 |

Brewing is important only in Samara, Nijni-Novgorod, Kazan, the Don Cossack territory, and Astrakhan. The following table shows the production in each government in 1914:—

| Government. | Gallons of beer produced. |
|-----------------------------|---------------------------|
| Astrakhan | 1,850,000 |
| Don Cossack territory | 2,200,000 |
| Kazan | 2,500,000 |
| Kostroma | 333,000 |
| Nijni-Novgorod | 2,700,000 |
| Samara | 4,700,000 |
| Saratov | 750,000 |
| Simbirsk | 219,000 |
| Vladimir | 31,200 |
| Voronezh | 373,000 |
| Yaroslav | 858,000 |

The industry appears to be declining, the breweries showing a decreased production in nearly every province of late years.

The Government of Voronezh possesses a beet-sugar industry. An annual average of 23,500 tons of raw

and refined sugar was turned out during the period 1909 to 1914, the greater part at the factory belonging to the Princess Oldenburg at Ramon, on the River Voronezh, a few miles north of the town of Voronezh.

Industries connected with the working of metals are poorly represented, the mineral resources being small. There are eight ironworks in the Ardatov district of the Government of Nijni-Novgorod, and two in the Murom district of the Government of Vladimir. In 1910 the production of pig-iron was 42,000 tons, and of manufactured iron, principally in the shape of iron bars, 7,000 tons. The industry employs 5,800 people. There are also ironworks in the Don Cossack territory near the anthracite mines.

Machinery manufacture is not conducted on a large scale. A certain amount of agricultural machinery is produced mainly in small works in the town of Rostov-on-Don and the Don Cossack territory; but the value of the whole output, £351,700, is only a small fraction of the total for European Russia and Poland, viz., £5,800,000. The following table shows the production from each government:—

| Government. | Value. | No. of Works. |
|-------------------------------|---------|---------------|
| | £ | — |
| Astrakhan | — | — |
| Don Cossack territory | 200,000 | 15 |
| Kazan | 7,000 | 5 |
| Kostroma | 1,200 | 6 |
| Nijni-Novgorod | 6,000 | 9 |
| Samara | 45,000 | 10 |
| Saratov | 5,700 | 20 |
| Simbirsk | 2,800 | 3 |
| Vladimir.. .. . | 44,000 | 20 |
| Voronezh | 34,000 | 11 |
| Yaroslav | 6,000 | 6 |
| Total | 351,700 | 105 |

Other works for machinery and metal manufactures are not numerous. The Sormovsky works in the Balakhinsk district of Nijni-Novgorod make goods-waggons and petroleum cisterns. The Juralev works at Yaroslav turn out machinery valued at £134,000 per annum.

Iron and steel shipbuilding is centred in the Government of Nijni-Novgorod and the town of Astrakhan, as well as at Samara and at Spassky Saton in Kazan Government. The last-mentioned yard has the greatest output. It is the property of the Caucasus and Mercury Steamship Company, and most of the luxurious passenger vessels plying on the Volga are constructed there, as well as oil-tank vessels for Caspian traffic.

There is a cement factory near Saratov, whose annual production may be estimated at about £25,000.

With the exception of a small production of glass, pottery, paper, and twine, the above exhaust the category of factory industries.

Kustarni industries are active, varied, and extremely valuable in nearly every government. The goods produced are frequently made for distant, especially Asiatic, markets. Each government has its characteristic *kustarni* industry, and it is of interest to enumerate these.

As in factory industry, Vladimir occupies first place, with a varied category and a large output, whose value is estimated at one-third of that for the whole of Russia. Cutlery, nail-, chain- and lock-making, furdressing, wood goods, ikons, sheep-skins, gloves, and toy-making are the principal items. The pottery work of Gyelov district is noted. A certain amount of *kustarni* cotton spinning and weaving is done in this government, as also in Kostroma and Yaroslav, the workers in this branch being partly dependent on the allied factory activity. As carpenters and masons, and especially as iron-roof makers, Vladimir craftsmen are employed all over Russia owing to their special skill.

These industries are also well developed in Nijni-Novgorod. Cutlery, nails, chains, and locks are manufactured from local iron. Articles are made of soaked bast and lime bark, especially at Arbatov and Semenov, which produce over £20,000 worth per annum. A speciality is enamelled wooden spoons for export to the Far East. These are often very elaborate articles, and much labour is spent upon them. Some 120,000,000 are turned out annually. Willow baskets, principally packing hampers, and fishing-nets are also specialities. Nijni nets are in great demand on the lower Volga. Lace-making, shoe and harness work, and tar and resin preparation complete the list.

Yaroslav has the same industries as Vladimir.

Kostroma is noted for its felt boots and other felt goods, the manufacture of which is an offshoot of the factory woollen industry.

Simbirsk has not very much *kustarni* industry, but turned wooden goods, bast goods, and shoes are made in the government.

Kazan has several industries peculiar to it. Cart and sledge makers send their products all over Russia, as also do the makers of wicker furniture. A special kind of morocco leather shoe is made in the vicinity of Kazan city for export to Asia; 3,000,000 pairs, valued at £500,000 sterling, are made annually.

Saratov produces sheep-skins and unwoven woollen goods, and especially carpets, which are made near Tsaritsyn. The German colonists in this government work at cotton-weaving, their output being valued at £200,000 annually.

In the Governments of Samara, Astrakhan, and Voronezh there is a less noticeable development of *kustarni* industries, and in the Don Cossack territory they are entirely absent.

It is not possible to go into figures in reference to *kustarni* industries, but the collective value of the pro-

ducts is very great, and it must be understood that only the purely industrial production is referred to, such articles as are made for domestic use and not sold not being included. The Government realizes that, owing to climatic conditions and the present position of agriculture, it is vitally necessary for the rural population to have a form of industry to fall back on, and supports the *kustarnis* by various methods, such as the provision of cheap raw materials, the placing of Government contracts for naval and military requisites, and the payment of instructors. In 1910, £84,800 was spent on the latter.

The chief weakness of the *kustarni* industry lies in the fact that the finished article is often parted with too cheaply for lack of proper touch with the market and resold at excessive profit. In order to avoid this, a central association was formed by the *zemstvo*s in 1913 for the marketing of *kustarni* wares. This association has opened shops in large centres both at home and abroad, and taken other measures to ensure that an adequate portion of the price paid by the consumer finds its way to the producer.

(6) POWER

As the area of the Don and Volga basins is mainly an agricultural district, the question of the provision of power is not at present important. In the industrial district in the provinces of Yaroslav and Vladimir there is, however, an opening for the supply of electricity for power from central power-stations. The use of the rivers for water-power is entirely precluded, not only by the weakness of the current owing to the slight fall in level, but also by ice in winter and drought in summer. Any scheme for the provision of electrical power for industrial use would, therefore, apparently be dependent on steam for its generating force.

(C) COMMERCE

(1) DOMESTIC

(a) Principal Branches of Trade

Commerce in Eastern Russia generally is at an early stage of development. Communications have until recently been very defective, especially on the east bank of the Volga, and commodities have only worked their way slowly to market. Fairs have in many cases absorbed the commerce of considerable areas. A large proportion of the wares, especially textiles, produced in the industrial Volga provinces, finds a market in Moscow or at the Nijni-Novgorod fair.

The principal articles of trade are the raw and partly manufactured products of agriculture, forestry, and fisheries. Among these grain occupies the first place. There has been up to the present a serious lack of suitable markets for grain. Samara on the Volga and Rostov-on-Don receive great quantities, owing to their position as river ports, but in grain-growing centres on the whole the trade is in a radically defective state, owing to inadequate and unsuitable storage facilities. The grain silo or elevator has only recently come into use in the best-equipped seaports for the convenience of oversea trade, and this device for storing grain has hardly made any headway in the interior of the country. As a result of the lack of storage room, grain was formerly forced upon the market immediately after the harvest, and sold for export as the easiest method of realization. Consequently, a shortage was often felt a few months later in the very districts which had unloaded great quantities. This wasteful method of commerce was so plainly disadvantageous to the trade that the State came to the rescue. The State Bank helped financially to the best of its ability by making loans on grain in store, but was obliged to have recourse for the purpose to the intermediary of local credit institutions, which often found themselves in difficulties owing to the

wide and rapid fluctuations of the market. In the matter of improved storage facilities the State had in hand extensive schemes for elevators, which were to cover the whole of the grain-growing provinces. A start was made with a plan for eighty-four elevators to be built in the trans-Volga grain region and in the Saratov, Voronezh, Tambov, Pensa, and Simbirsk Governments, to be followed by others in different parts of Russia and Siberia. The eighty-four mentioned were to hold 1,000,000 tons of grain, and about twenty of these were ready or approaching completion when war broke out. If the proper value of the grain raised in Russia is to be realized by the growers, the completion of these elevator schemes is a matter of urgent necessity.

The trade in oil-seeds centres in the towns of Kostroma, Samara, Tsaritsyn, and Astrakhan, and for export purposes in Rostov-on-Don and Taganrog.

Flax is marketed at Rostov (Government of Yaroslavl), Rybinsk, Melenky, Kostroma, and Voronezh. Hemp is specially dealt in at Great Beresniki, in Simbirsk Government.

Animals and animal products are the next most valuable commodities. Live-stock is mainly disposed of at the fairs which are mentioned below (p. 91). Wool and hides also find their market principally in the same way. Animal fats and oils, tallow, &c., come to market in Saratov, Kazan (where there is a great soap industry), Tsaritsyn, Voronezh, and Rostov-on-Don which is the great export wool-market of South Russia.

The central market for fish is Tsaritsyn. The produce of the Lower Volga and Don fisheries is distributed from there.

Live poultry and geese are disposed of centrally at Saratov, and there is a big market at the town of Krasnoi-Yar near by.

Timber is partially disposed of at fairs, especially at the noted one of Kosmodemyansk. Otherwise Kostroma, Nijni-Novgorod, Tsaritsyn, and Rostov-on-Don (for export) are the usual markets.

(b) Towns, Markets, Fairs, &c.

Those towns which are devoted to the marketing of some special product of the surrounding area, or which receive and distribute owing to their situation on the Volga, have been mentioned in the foregoing section.

A few towns are engaged in general trade, especially with Asia. Kazan is a mart for exchange between east Russia, Turkestan, and Persia and the country west of the Volga. The Kazan merchants are chiefly Tatars, and their transactions penetrate far into Asia.

Samara is also interested in Asiatic trade, owing to its situation on the route between the Russian industrial districts and Siberia and to its additional advantage of being a first-rate river port.

Saratov also owes a flourishing trade to its position on rail and river. Its merchants act as the intermediaries between south-east Russia and the central provinces.

Nijni-Novgorod has a large trade with the East apart from its fair. It deals in the products of the *kustarni* industries of several neighbouring provinces. These consist of cutlery, leather, felt, woollen, and wooden goods.

The transit trade of Tsaritsyn is very great, as it lies at the point where the Volga and Don most nearly approach one another, the distance between them here being only 40 miles. The transfer from river to rail and *vice versa* in Tsaritsyn is very active. It is a great storage centre for petroleum moving northward or westward on its way from the Caspian; and fish, timber, wool, oil-seeds, and cattle are distributed through it.

The fairs of the Don and Volga regions are numerous. In the present phase of commerce they represent the largest market in the area, and have almost a monopoly in the commercial transfer of certain commodities. The annual fair at Nijni-Novgorod stands out above all others in the volume of

its business, in the variety of its frequenters and their dealings, and in its romantic and historic interest.

The existence of an annual fair on the banks of the Volga for the exchange of products between east and west dates far back into the Middle Ages. The original seat of the fair was Kazan, whence it was transferred to Makariev, on the Volga, some 30 miles below Nijni. In 1817 it was transferred to Nijni on account of a fire, and probably also because the situation of this town at the confluence of the Oka and the Volga, and its near proximity to the confluence of the Volga and Kama, make it the centre of an extensive system of inland navigation, which connects it with all parts of the Russian Empire.

The number of visitors to the fair is not easily calculated, but it is estimated that in the busiest period as many as 400,000 people, representing a motley variety of European and Asiatic nationalities, are to be found in the precincts. The character of the fair has changed much of late years. Formerly tea, raw cotton, furs, and skins were the chief articles of commerce; now hides and cotton and woollen manufactured goods come first, while the fur trade is almost disappearing, and tea and raw cotton have become of very small importance. The fair has recently developed another side, which is growing in importance from year to year. It has become a great financial settling centre and a rendezvous for the conclusion of trade contracts. It serves in the nature of a clearing bank for people from all parts who are not accustomed to ordinary bank transactions in their commerce.

The fair lasts from July 28 to September 7. The busiest period is during the first and second weeks of August. The last day of the fair is a legal settling day, when all bills given during the fair become due.

The high-water mark of the fair was reached in the period from 1880 to 1884, when the average turnover was £21,500,000. For the period from 1892 to 1896 the average had sunk to £17,000,000. In 1910 the turnover was £15,900,000, which was 15 per cent. less

than in 1909. It is not likely that the fair will ever regain its former prosperity, and it is thought that in future its activities will be concerned more with Asiatic Russia and less with southern Asia and China than formerly.

Nijni also has a horse-fair in June, and one for the sale of *kustarni* wooden goods in January. The latter is held upon the frozen surface of the River Oka.

There are many other fairs of importance in the Don and Volga regions, of which details are given in the following table:—

| Place. | Govern- ment. | Name. | Turn- over. | Commodities. | Date. |
|--------------------|------------------|----------------------|----------------|--|-------------------------|
| Akhunsk .. | Astrakhan | Khanskaya | £ 160,000 | Cattle, leather, and manufactured goods | May 9-25 |
| Krivorosh- kaya | Don .. | Troitskaya.. | 250,000 | Cattle, corn, wine, colonial and manu- factured goods | Trinity |
| Urupinskaya | Don .. | Pokrovskaya | 110,000 | " " | Sept 25, for 1 month |
| Kosmodem- yansk | Kazan | Iesnaya .. | 200,000 | Timber | May 25 to July 25 |
| Laishev .. | Kazan .. | Karavanaya | 116,000 | Iron and metal goods | May 28 to June 11 |
| Bugulma .. | Samara .. | Vosvishdens- kaya | | Manufactured goods, horses | Sept 14-26 |
| Simbirsk .. | Simbirsk | Sbornaya .. | 400,000 | Manufactured goods, leather, wool and cattle | 14 days in Lent |
| Rostov .. | Yaroslav | Rostovskaya | 144,000 | Agricultural pro- ducts, seeds, iron goods, wooden utensils | 18 days in Lent |

Two large horse-fairs are held in spring and autumn respectively for the disposal of the Kirghis horses bred by the Bukeyev Orda ("Inner Horde"). There are also noted horse-fairs at Simbirsk, Samara (three annually), Bugulma (two annually), and Novousensk (Astrakhan).

A great deal of trade is done at small local fairs. Small merchants transport stocks of goods from one fair to another. There are fifty-two such fairs in the Don territory alone.

(c) *Organizations to promote Trade and Commerce*

As has been indicated above (p. 87), commerce generally in eastern Russia suffers from want of organization. Interests have not as yet reached that pitch of cohesion at which the need of centralization is felt. Chambers of commerce exist at Astrakhan, Kazan, Rostov-on-Don, and Saratov, which are the towns where commerce has developed most on modern lines. There is also an exchange at Rostov-on-Don. A great deal of the commerce is in the hands of Tatars and Jews, whose racial freemasonry supplies an unofficial organization in itself. In the provinces where there are *zemstvos*, these organs of local government have entered deeply into the organization and even the promotion of trade. Their activities in connection with the trade in *kustarni* wares have already been mentioned (p. 86). They also in many places take active part in the trades directly connected with agriculture, such as those in seed, pedigree stock, and agricultural machinery.

An organization peculiar to Russia is the *artel* or workmen's syndicate. It is a very elastic combination, usually without capital, and is based on the principle that all members are workers and have equal rights in the organization. In the main *artels* are concerned in industry, but they are also formed for commercial aims, and the development of organization in trade will in future very possibly be to some extent in their hands. They are easily formed and as easily dissolved when their immediate object is attained, and thus provide a very cheap and flexible form of organization.

(d) *Foreign, especially British, Interests*

Foreign interests in the Don and Volga regions are very slight. Agriculture is in no way touched by outside capital or management. In industry foreign

capital has a little influence, more particularly in the coal-pits and iron-works of the Don anthracite region, but the textile industries are entirely Russian, except for the employment of technical staffs from various foreign sources. In commerce foreign interests are equally absent, except in a small degree in the transport of petroleum.

On the whole the region lends itself very little to exploitation from outside. The forests are not now as extensive as formerly; the geological formation does not encourage the expectation of the discovery of valuable minerals, and, except in the Don mining districts and the Upper Volga textile districts, such industry as may be expected to develop will be based on agricultural and pastoral activity, which have no attraction for the foreigner. The export and import trade appears to be the only field open to the latter.

(2) FOREIGN

(a) *Exports*

Quantities and Values.—No separate figures are given in the export statistics for the different provinces or regions of Russia, and information can only be furnished in the form of an estimate based on the probable share of any region in the total export. Russia's greatest export of value consists in cereal foodstuffs, and probably not much less than one-half of the amount exported comes from the Don Cossack territory and the Governments of Voronezh, Samara, Saratov, and Kazan. A small share of the great export trade in eggs falls to Kazan and Simbirsk, and Yaroslav, Kostroma, and Vladimir export poultry. Caviare from the Volga and Don fisheries is normally exported to the value of £350,000 a year. Linseed and flax, hemp and tow are exported from the more northerly regions, while the southern Governments, except Astrakhan, contribute largely to the consider-

able export of oil-cakes from linseed, hemp seed, sunflower seed, and rape seed. The cattle areas, Astrakhan, Samara, and the Don Cossack territory, export great quantities of hides, and wool despatched from approximately the same areas to Rostov makes the latter the largest wool-exporting port in Russia. Textiles are exported from Vladimir and Yaroslav, and anthracite from the Don region. Other items of export in which the area takes its share are horse-hair, bristles, vegetable oils, wooden wares, and leather goods.

Countries of Destination.—A large proportion of the Don and Volga exports goes to various Asiatic countries. Turkestan, having placed a large area under cotton, is now dependent on Russian breadstuffs to make good the deficit created. From the Don region wheat and barley are exported in normal times *via* Taganrog to Great Britain, France, Italy, and Germany, the latter receiving its supply largely through Rotterdam, which accounts for Holland figuring as a large importer. Other foodstuffs exported go mainly to Great Britain and Germany. Linseed and flax go chiefly to Great Britain and in smaller quantities to Belgium, Germany, and France; 80 per cent. of the hemp and tow goes to Germany, Great Britain taking nearly all the remainder in the case of hemp, and Austria some of the tow. Great Britain takes one-fifth of the linseed cake, Germany one-third, Belgium, Holland and Denmark the bulk of the remainder. Hemp-seed cake goes almost entirely to Germany and Denmark. Sunflower-seed cake goes to Denmark, Germany, and Sweden. Great Britain is the principal importer of rape seed, France and Germany together taking about the same quantity as that country. Finland is the principal customer for linseed oil, taking nearly all that Russia has for export, as well as a large proportion of the hemp-seed oil. Austria takes a share of the hemp-seed oil and sunflower-seed oil also, but the bulk of the latter goes to Turkey and Rumania. Unclassified vegetable oils are nearly all absorbed by Finland

Germany is the largest importer of hides, Great Britain and Denmark following next in order, but of recent years the export to the United States has expanded remarkably. Sheepskins are mainly exported to Germany, Great Britain and the United States taking the next largest quantities. The coarse wools go to Great Britain, America and Germany in about equal quantities on an average, but with great variations in different seasons. The same may be said of merino wool, though American takings have been especially heavy of recent years. Great Britain takes the bulk of the camels' hair. Horse-hair goes principally to Germany and Austria, and in a lesser degree to Great Britain. The best caviars go to Germany and France, the cheaper varieties to Turkey and Rumania. Cotton textiles are exported to Siberia and other parts of Asia from the industrial provinces. The export of leather goods and wood wares, both of which are the product of *kustarni* industry, is also in the Asiatic direction.

(b) Imports

Quantities and Values.—The Russian import list, consisting as it does principally of manufactured articles, is very varied, and it is not possible to trace the destination of goods to definite provinces or areas. Only general conclusions can be drawn. Imported agricultural machinery is undoubtedly much used in the whole area of the Volga and Don. Of raw material for industry, cotton, cotton-yarn, and silk are imported, as are also most of the chemicals and dyes. Of the miscellaneous manufactured articles, especially such as partake in any way of the nature of luxury articles, a small quantity only finds its way to the area under survey, as there are few considerable centres of population, and the great bulk of the population, being of the peasant class, has small purchasing power and no surplus for imported luxuries.

Countries of Origin.—The agricultural machinery imported comes from America, Great Britain, and Germany. American harvesting machinery is in great demand. British threshing machinery, locomotives, and elevators have a strong hold. German ploughs and smaller machinery have been much imported, but meet with strong competition from native makes. Machinery for industry is mainly British or German. The cotton required for industry comes partly from Turkestan, which has latterly become a great growing area, partly from America, and in smaller quantities from Egypt. Chemicals and dyes for industry are of German origin.

(c) *Customs and Tariffs*

The general Russian tariff, both on manufactured goods and on most raw materials, is strongly protective. Where possible, goods are assessed by weight and not by value. The tariff contains 218 schedules, with many sub-classifications.

There is a short free list, which consists principally of the more complicated kinds of agricultural machinery, live cattle, horses, and cattle food made from the by-products of manufacture.

Low duties are placed on certain artificial fertilizers and on chemicals necessary for tanning and other industries.

(D) FINANCE

(1) *Public Finance*

The revenue of the Russian Empire is almost entirely raised by indirect taxation, only some 6-7 per cent. being derived from direct taxes on land, industry, and capital.

The total revenue of European Russia was 1,908,779,000 roubles in 1906, and 1,522,865,000

roubles in 1910. The contributions made in those years by the Don and Volga governments were as follows :—

| Government. | Revenue in thousand roubles. | |
|-----------------------------|------------------------------|--------|
| | 1906. | 1910. |
| Astrakhan | 10,969 | 13,336 |
| Don Cossack territory | 37,614 | 46,156 |
| Kazan | 15,318 | 20,442 |
| Kostroma | 11,994 | 12,991 |
| Nijni-Novgorod | 17,735 | 18,997 |
| Samara | 17,689 | 32,242 |
| Saratov | 27,870 | 33,425 |
| Simbirsk | 10,013 | 13,487 |
| Vladimir | 15,898 | 15,990 |
| Voronezh | 18,731 | 23,327 |
| Yaroslav | 18,501 | 16,228 |

For provincial purposes the *zemstvos* raise considerable sums in taxation. Over 50 per cent. of their revenue is derived from direct taxation on land and buildings. Licences and taxes on capital also account for a good proportion of the total. The *zemstvo* expenditure is of two kinds, obligatory and optional. Local administration, justices of the peace, posting-stations and maintenance of post-horses, recruiting stations for the army, police quarters, &c., are among the principal items which are obligatory, while expenditure on public instruction, medical and sanitary measures, roads and bridges, and insurance against fire and flood is optional. The fiscal unit of the *zemstvos* is the district, and the district *zemstvo* sends delegates to the provincial *zemstvo* council. The ability to raise revenue varies very much in different *zemstvos*. Some have entered on an ambitious loan policy and are active in trade, but in general their budget is restricted and their activities are much hampered for lack of funds. Nine of the eleven Don and Volga Provinces have *zemstvos*. Astrakhan, being

largely inhabited by nomad Kalmuck and Kirghis, is not suited to the institution. The Don Cossack territory was granted a *zemstvo*, but the Cossacks finding it unsuited to their semi-military organization, and suspecting that it cost more than it was worth, petitioned the Tsar to be relieved of the burden of maintaining it, and their request was granted. The following table shows the revenue of the *zemstvos* of each government in 1906 and 1910 :—

| Government. | Receipts in thousand roubles. | |
|------------------------|-------------------------------|-------|
| | 1906. | 1910. |
| Kazan | 3,029 | 3,517 |
| Kostroma | 3,030 | 4,624 |
| Nijni-Novgorod | 2,951 | 3,884 |
| Samara | 4,720 | 6,666 |
| Saratov | 3,991 | 5,092 |
| Simbirsk | 2,153 | 2,699 |
| Vladimir | 3,428 | 4,731 |
| Voronezh | 3,658 | 5,716 |
| Yaroslav | 2,268 | 3,422 |

The indebtedness of the provincial and district *zemstvos* in July 1909 was as follows :—

| | Roubles. |
|--|-----------|
| Kazan | 568,000 |
| Kazan District <i>zemstvo</i> | 15,500 |
| Kostroma | 763,000 |
| Nijni-Novgorod | 1,224,000 |
| Nijni-Novgorod District <i>zemstvo</i> | 70,000 |
| Samara | 2,966,000 |
| Samara District <i>zemstvo</i> | 119,000 |
| Saratov | 1,714,000 |
| Saratov District <i>zemstvo</i> | 287,000 |
| Simbirsk | 1,352,000 |
| Simbirsk District <i>zemstvo</i> | 115,000 |
| Vladimir | 544,000 |
| Voronezh | 1,102,000 |
| Voronezh District <i>zemstvo</i> | 91,000 |
| Yaroslav | 764,500 |

There are thirty-two towns in the Don and Volga area which have an urban administration, and are entitled to raise money within their boundaries for civic administration. Of these only seven have a budget of over 1,000,000 roubles, namely, Nijni-Novgorod, Rostov-on-Don, Samara, Saratov, Tsaritsyn, Astrakhan, and Kazan. The smallness of the budgets and of the indebtedness of the towns in general is accounted for by the fact that they do not as a rule construct or administer public utility works, such as water supply, lighting, and tramways, but allow them to be exploited by private companies.

The commune or *mir* has also taxing powers for the upkeep of local institutions, local roads and bridges, maintenance of storing places for grain, and other rural needs. There is much obscurity and irregularity in the collection and disbursement of these taxes, and no data are forthcoming in reference to them.

(2) *Currency*

The Russian currency is on a gold basis. The rouble is the unit, and is divided into 100 kopecks. The pre-war exchange value of the rouble was 2s. 1½d., and the normal exchange for £1 was 9·45 roubles. The State Bank issues notes for 1, 3, 5, 10, 25, 50, 100, 500, and 1,000 roubles.

(3) *Banking*

The banking system of Russia is somewhat complex. The most salient feature is the dominant position of the State Bank. Other notable characteristics are the close connection between the banks and State finance, and the tendency to far-reaching regulation of private banks by the State. For purposes of description the banks can be divided as follows: (1) the State Bank; (2) other State banking institutions; (3) joint-stock banks granting long-term loans on landed security; (4) commercial banks, mainly joint-stock concerns, but

also including municipal banks in certain towns, which grant short-term commercial credit; (5) credit associations of various kinds.

The State Bank is a Government institution, having the closest relations with the Treasury. It controls the currency, has a monopoly of the note issue, and undertakes general banking transactions and bill-broking. One of its most important functions is that of supporting smaller credit institutions by loans and advances on goods, especially grain, and the Government has made free use of its resources in the endeavour to finance the grain market and prevent premature and unprofitable sale of the harvest. For example, local agricultural, co-operative, and loan societies in the Don territory received advances of £71,000 in 1904, of £221,000 in 1908, and of £1,610,000 in 1912.

The difficulty of raising loans on landed security at a reasonable rate of interest subsequent to the liberation of the serfs and the assignment of the *nadyel* land, led the State to found two financial institutions, the nobles' land bank and the peasants' land bank, for the hypothecation of the property of these two classes respectively. Whereas the rate of private banks had often been as high as 10 per cent., that of the nobles' land bank varied from $3\frac{1}{2}$ to 5 per cent., and that of the peasants' land bank from 4 to 6 per cent. The total sum loaned on rural property in 1912 in all Russia was 3,318,000,000 roubles; of this 32 per cent. was loaned by the peasants' land bank, 25 per cent. by the nobles' land bank, and 43 per cent. by other credit institutions.

The State savings banks are separate concerns, but are dependent on central management and control, and work under the supervision of the State Bank. In 1910 some 7,365 offices had 6,940,000 open accounts, aggregating 1,282,000,000 roubles, the average deposit per account being 186 roubles. The funds were invested to the extent of 37 per cent. in State loans, 24 per cent. in railway securities, and 36 per cent. in the bonds of the nobles' and peasants' land banks. The figures for

many years back show increases of deposits of $7\frac{1}{2}$ –10 per cent. annually.

An important series of joint-stock banks was started in the early 'seventies under special ordinances. These banks usually cover one or at most two provinces in their operations, and are confined to those for which their charter is made out. Their function is loaning on landed security. Their bonds bear $4\frac{1}{2}$ per cent. interest, and are negotiable documents. Three such banks exist in the Don and Volga area, and their operations and capital are as follows:—

| Bank. | Share capital. | Reserve. | Bonds circulation (1911). |
|-------------------------|----------------|----------|---------------------------|
| | £ | £ | £ |
| Nijni-Novgorod-Samara.. | 647,000 | 316,000 | 8,729,000 |
| Yaroslav-Kostroma .. | 250,000 | 71,000 | 3,166,000 |
| Don | 800,000 | 453,000 | 11,903,000 |

The joint-stock and commercial banks are of fairly modern creation. Besides carrying on general banking transactions, they grant short-term commercial credit, deal largely in commercial securities, and act as intermediaries in stock and share transactions. They also finance industrial undertakings, and even promote new enterprises of the kind. Although these banks in many cases have territorial titles, such as Azov-Don, Russo-Asiatic, &c., their activities are not confined to the regions indicated.

There are nine joint-stock banks doing business in Russia generally which have branches in towns of the Don and Volga region. Their names, with the number of branches in the area, are as follows:—

Azov-Don Commercial Bank, 9 branches.

Russian Bank for Foreign Trade, 5 branches.

Union Bank, 3 branches.

Moscow Bank, 3 branches.

Petrograd Discount Bank, 2 branches.

International Bank of Commerce of Petrograd,
2 branches.

Bank of Commerce and Industry, 8 branches.

Volga-Kama Bank, 11 branches.

Russo-Asiatic Bank, 8 branches.

These are all wealthy corporations with paid-up capital varying between two and six millions sterling.

The commercial community in several large towns has founded banking institutions of a joint-stock character for financing local trade. The list of these is as follows:—

Commercial Bank of Rostov-on-Don.

Rostov-on-Don Merchants' Bank.

Nijni-Novgorod-Samara Bank.

Samara Commercial Bank.

Tsaritsyn Merchants' Bank.

Voronezh Merchants' Bank.

There are further in certain towns municipal banks, which are of a local character and controlled by the municipal authorities. Arsamass, Astrakhan, Kazan, Nijni-Novgorod, Saratov, Sysran, Taganrog, Tsaritsyn, Voronezh, and Yaroslav have each a municipal bank.

One of the most vital necessities of the country is small local agrarian credit. The need is partially supplied by various kinds of mutual credit associations, which work under a special law, and are supported by the State Bank. The first of such associations was founded in 1862. From 1883-1893 the foundation of new ones was forbidden by law, but the embargo was removed at the end of that period, and between 1894 and 1908, 232 new associations were started. Progress since then has been very rapid. In 1911 co-operative credit institutions numbered 4,314, with a membership of 2,269,000 and a sum of 167,180,000 roubles on loan. Later figures show that in 1914 some 13,000 credit associations existed, with 8,000,000 members, resources of 630,000,000 roubles, and a sum of 520,000,000

roubles on loan. The principal purposes for which the loans were made were the renting of land and the purchase of live-stock and of seed.

Lack of centralization and co-ordination constitutes an element of weakness in the movement. A central bank for mutual credit associations existed in Petrograd, but by no means all mutual banks were associated with it. This rôle has recently been taken up by the Moscow People's (Narodny) Bank, which is the central bank for co-operative societies in Russia. The rapid accumulation of capital from small savers is plain from the figures relating to small credit institutions and the State savings banks. Deposits in 1908 were 2,969,000,000 roubles, and in 1913 almost double that sum, namely, 5,228,000,000 roubles.

(4) *Influence of Foreign Capital*

It is difficult to trace any influence of foreign capital in the Don and Volga region. The financing of agriculture is quite free from it, and its part in financing industry is described above (p. 92). State loans have been used for railway construction, but the foreign capital thus brought in exercises no influence. The great commercial banks are reputed to be much supported by German high finance, and their policy is said to be directed in the interests of German trade and banking, but no actual figures can be quoted in support of this statement. There is indeed not much to attract foreign capital to the Don and Volga region, as the absence of precious metals, petroleum, or any other natural product, the exploitation of which would bring a high return, leaves little except agriculture and industries dependent on it for the investor to take up, and these are in no way sufficiently attractive.

(5) *Principal Fields of Investment*

Any future field for investment would appear to lie in the financing of public utility works, such as har-

bours, canals and railways, tramways and lighting for towns, &c., all of which are needed in the larger centres, and will probably be undertaken with capital secured on the local revenues. The further development of the Don anthracite region will also offer opportunity for investment.

APPENDIX

TABLE I.—AVERAGE ACREAGE OF PRINCIPAL CROPS,
1901-10.

| Government. | Rye. | Wheat. | Barley. | Millet. | Pulses. | Oats. | Pota- toes. | Flax and Hemp. |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------------|
| | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> |
| Astrakhan ... | 385,500 | 777,300 | 20,500 | 69,122 | 3,510 | 20,925 | 12,430 | 3,140 |
| Don Cossack terri- tory | 2,320,000 | 6,345,000 | 2,638,110 | 354,300 | 32,582 | 687,868 | 153,785 | 89,910 |
| Kazan ... | 2,673,900 | 119,700 | 113,832 | — | 176,310 | 1,518,800 | 499,500 | 75,200 |
| Kostroma ... | 1,100,300 | 52,922 | 180,590 | — | 19,090 | 704,951 | 115,225 | 117,663 |
| Nijni-Novgorod ... | 1,419,800 | 207,090 | 25,650 | — | 147,690 | 648,300 | 112,200 | 118,260 |
| Samara ... | 2,709,700 | 6,184,000 | 258,120 | 544,560 | 112,760 | 895,880 | 92,237 | 58,050 |
| Saratov ... | 2,779,000 | 2,452,000 | 88,943 | 658,430 | 150,773 | 1,092,000 | 108,877 | 67,300 |
| Simbirsk ... | 1,866,000 | 167,135 | 11,738 | 328,490 | 104,800 | 992,900 | 99,480 | 58,050 |
| Vladimir ... | 1,085,900 | 25,928 | 23,395 | — | 55,792 | 548,388 | 157,590 | 100,907 |
| Voronezh ... | 2,128,000 | 1,322,000 | 659,200 | 680,500 | 25,900 | 848,900 | 220,150 | 117,000 |
| Yaroslavl ... | 598,200 | 17,517 | 28,200 | — | 12,093 | 416,400 | 126,100 | 111,000 |

TABLE II.—ACREAGE OF PRINCIPAL CROPS, 1914.

| Government. | Rye. | Wheat. | Barley. | Millet. | Pulses. | Oats. | Pota- toes. | Flax and Hemp. |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------------|
| | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> | <i>Acres.</i> |
| Astrakhan ... | 522,771 | 978,963 | 33,353 | 73,807 | 3,547 | 22,358 | 13,805 | 1,436 |
| Don Cossack terri- tory | 1,956,000 | 7,803,000 | 3,565,000 | 337,700 | 22,461 | 761,321 | 194,000 | 50,373 |
| Kazan ... | 2,523,000 | 199,932 | 110,813 | 104,000 | 224,200 | 1,574,000 | 92,223 | 80,141 |
| Kostroma ... | 1,109,000 | 49,800 | 166,200 | — | 16,858 | 712,908 | 140,200 | 123,705 |
| Nijni-Novgorod ... | 1,390,000 | 193,117 | 25,074 | 59,583 | 151,823 | 616,800 | 144,360 | 118,227 |
| Samara ... | 2,267,500 | 7,343,285 | 428,511 | 489,299 | 86,154 | 847,800 | 108,200 | 46,100 |
| Saratov ... | 2,666,000 | 2,908,000 | 105,391 | 582,940 | 231,486 | 964,311 | 126,689 | 38,097 |
| Simbirsk ... | 1,805,400 | 311,909 | 10,805 | 324,300 | 113,700 | 884,264 | 156,255 | 47,500 |
| Vladimir ... | 1,068,800 | 29,070 | 24,556 | — | 43,400 | 568,100 | 187,500 | 106,836 |
| Voronezh ... | 2,251,000 | 1,664,000 | 634,624 | 621,486 | 32,197 | 935,271 | 255,236 | 70,256 |
| Yaroslavl ... | 595,300 | 19,286 | 26,060 | — | 11,488 | 374,784 | 131,689 | 95,496 |

TABLE III.—AVERAGE HARVEST OF PRINCIPAL CROPS,
1901-1910.

| Government. | Rye. | Wheat. | Barley. | Millet. | Pulses. | Oats. | Pota- toes. | Flax and Hemp. |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------------|
| | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> |
| Astrakhan ... | 28,000 | 92,000 | 2,000 | 6,000 | 400 | 2,900 | 2,000 | 250 |
| Don Cossack terri- tory | 330,000 | 1,290,000 | 754,400 | 54,000 | 5,800 | 144,000 | 190,000 | 10,000 |
| Kazan ... | 494,000 | 85,000 | 23,000 | 9,000 | 29,000 | 355,000 | 103,000 | 11,000 |
| Kostroma ... | 277,000 | 10,000 | 48,000 | — | 4,000 | 174,000 | 298,000 | 13,000 |
| Nijni-Novgorod ... | 390,000 | 54,000 | 6,000 | 15,000 | 28,000 | 150,000 | 290,000 | 17,000 |
| Samara ... | 555,000 | 1,189,000 | 43,000 | 67,000 | 18,000 | 158,000 | 159,000 | 9,000 |
| Saratov ... | 492,000 | 455,000 | 17,000 | 109,000 | 31,000 | 254,000 | 190,000 | 10,000 |
| Simbirsk ... | 590,000 | 75,000 | 3,000 | 83,000 | 18,000 | 231,000 | 203,000 | 11,000 |
| Vladimir ... | 232,000 | 6,000 | 6,900 | — | 13,000 | 163,000 | 398,000 | 13,000 |
| Voronezh ... | 436,000 | 290,000 | 133,000 | 189,000 | 7,000 | 249,000 | 520,000 | 23,000 |
| Yaroslavl ... | 185,000 | 5,000 | 9,000 | — | 3,000 | 134,000 | 372,000 | 15,000 |

TABLE IV.—HARVEST OF PRINCIPAL CROPS, 1914.

| Government. | Rye. | Wheat. | Barley. | Millet. | Pulses. | Oats. | Pota- toes. | Flax and Hemp |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------------|
| | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> | <i>Tons.</i> |
| Astrakhan ... | 55,000 | 158,000 | 6,000 | 8,000 | 500 | 4,000 | 26,000 | 250 |
| Don Cossack terri- tory | 374,000 | 1,578,000 | 931,000 | 43,000 | 4,000 | 188,000 | 319,000 | 9,000 |
| Kazan ... | 515,000 | 76,000 | 26,000 | 4,000 | 15,000 | 294,000 | 143,000 | 8,000 |
| Kostroma ... | 276,000 | 8,000 | 29,000 | — | 2,000 | 133,000 | 318,000 | 10,000 |
| Nijni-Novgorod ... | 407,000 | 28,000 | 4,000 | 8,000 | 10,000 | 88,000 | 309,000 | 13,000 |
| Samara ... | 467,000 | 1,784,000 | 101,000 | 47,000 | 12,000 | 183,000 | 226,000 | 7,000 |
| Saratov ... | 621,000 | 569,000 | 18,000 | 56,000 | 33,000 | 164,000 | 228,000 | 6,000 |
| Simbirsk ... | 498,000 | 70,000 | 2,000 | 22,000 | 9,000 | 166,000 | 249,000 | 7,000 |
| Vladimir ... | 283,000 | 7,000 | 4,000 | — | 5,000 | 109,000 | 454,000 | 17,000 |
| Voronezh ... | 777,000 | 372,000 | 127,000 | 126,000 | 8,000 | 274,000 | 622,000 | 18,000 |
| Yaroslavl .. | 151,000 | 4,000 | 5,000 | — | 1,500 | 80,000 | 374,000 | 10,000 |

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MAPS

The Don and Volga Basins are comprised in twelve sheets (Rostov, L. 37; Praskoveya, L. 38; Astrakhan, L. 39; Kharkov, M. 37; Saratov, M. 38; Uralsk, M. 39; Moskva, N. 37; Penza, N. 38; Kazan, N. 39; Yaroslav, O. 37; Nijni-Novgorod, O. 38; Viatka, O. 39) of the International Map (G.S.G.S. No. 2758), published by the War Office, on the scale of 1:1,000,000.

A special map of this country, on the scale of 1:3,220,177, and showing soils, &c., has been issued by Stanford's Geographical Establishment.

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I. GEOGRAPHY PHYSICAL AND POLITICAL

TRANSCAUCASIA

(1) POSITION AND FRONTIERS

TRANSCAUCASIA in Asiatic Russia consists of the following six Governments, three Provinces, and two Districts :

| | <i>Square Miles.</i> | | <i>Square Miles.</i> |
|-------------------------------|--------------------------|--------------------|--------------------------|
| Black Sea (Chernomoria) . . . | 3,220 | Elisavetopol . . . | 16,991 |
| Kutais . . . | 8,145 | Batum . . . | 2,693 |
| Tiflis . . . | 15,770 | Kars . . . | 7,239 |
| Baku . . . | 15,061 | Daghestan . . . | 11,471 |
| Erivan . . . | 10,725 | Zakatali . . . | 1,539 |
| | | Sukhum . . . | 2,545 |
| | | Total . . . | 95,399 |

The northern boundary (650 miles in length) runs from Cape Taman, on the eastern side of the Straits of Kerch, along the summits of the Caucasian chain as far as Donos Mta, and thence along the north-west frontier of Daghestan to the Bay of Agrakhan on the Caspian. The western frontier, about 400 miles long, is formed by the coast of the Black Sea from the peninsula of Taman to Cape Kopmush, south of Batum. The southern frontier falls into two divisions, the Russo-Turkish and the Russo-Persian. The former starts from Cape Kopmush and runs for 348 miles south-east to Mount Ararat, where the boundaries of Russian, Turkish, and Persian territory meet. The Russo-Persian boundary (350 miles) runs south-east to a few miles east of Ordubad, where it turns to the north-east as far as the village of Karakyavendikli; thence it again turns south-east and finally reaches the

Caspian at Fort St. Nicholas on the Astara. The eastern frontier, some 450 miles in length, is formed by the Caspian Sea from the Bay of Agrakhan to the River Astara.

Geographically Transcaucasia is so placed that, with the development of communications, it should reap considerable advantages from the commercial development both of northern Persia and of north-eastern Asia Minor.

(2) SURFACE, COASTS, AND RIVER SYSTEM

Surface

Transcaucasia is divided across the centre from west to east by the two valleys of the Rion and Kura, the head-waters of which are separated by the low ridge of the Suram Mountains, connecting the Caucasus with the Armenian Highlands. These valleys run west and east into the Black and Caspian Seas respectively. They are roughly equivalent to the Governments of Kutais (the Rion valley), Tiflis, Elisavetopol, and Baku. The Governments of Kutais and Tiflis and parts of Batum form the region known as Georgia.

The Rion valley is narrowed in its upper part by the mountainous district of Svanetia, but begins to broaden west of Kutais, and becomes a flat, marshy plain. The Kura valley narrows about Tiflis, and then widens till, at the Mughan steppe, it is over 100 miles broad. The valley floor slopes gently east from 1,200 ft. at Tiflis to 500 ft. in the middle of its course, and 85 ft. below sea level at the Caspian. The only interruption is caused by a plateau of between 2,000 and 3,000 ft. along the southern foot-hills of the eastern Caucasus in the region known as Kakhetia.

The soil in the Rion and upper Kura valleys is extraordinarily fertile. On the southern slope of the Caucasus, in fact, almost every available patch of ground is successfully utilized for agriculture, even up to a height of 7,000–8,000 ft. Most of the steppes in the lower Kura valley are too dry to be cultivated without the aid of irrigation.

The Caucasus range dominates the whole of Transcaucasia. It is over 400 miles long, while its outskirts stretch for 150 miles and 100 miles respectively to Baku and Novorossiisk. It runs from west-north-west to east-south-east between 45° and 40° north latitude, and falls naturally into three well-defined sections: a western section from Anapa to the upper valley of the Kodor, not far from Sukhum; the main central section from the upper Kodor valley to Mount Kazbek; and an eastern section, including the Highlands of Daghestan, and extending from Mount Kazbek to Baku.

The *western* section commences with hills, which rise gradually to a height of 7,000 ft. at the source of the Kodor. The mountains fall abruptly to the Black Sea.

The *main central* section is entirely mountainous, the general elevation being within the limit of perpetual snow, which on the north side is 9,500 ft. and on the south 10,800 ft. The five highest peaks are Mount Elbruz (18,470 ft.), Koshtan Tau (16,539 ft.), Dikh Tau (16,925 ft.), Janga (16,660 ft.), and Kazbek (16,546 ft.); and there are many others over 14,000 ft. The chief passes are the Mamison Pass (9,253 ft.), across which runs the Ossetian Military Road, connecting Kutais with Vladikavkaz; and the Dariel Pass (4,122 ft.), over which the Georgian Military Road runs from Vladikavkaz to Tiflis. There are no large lakes, and few tarns.

The *eastern* section broadens as it approaches the Caspian, including on the northern side of the main range a triangular area known as the Daghestan Highlands. The country here is difficult of access, and only one military road leads up from the River Terek in Ciscaucasia, the eleven passes being mere bridle-paths. The general elevation of the main range rarely exceeds the line of perpetual snow, but there are three peaks of over 14,000 ft. From Shemakha the elevation declines rapidly; at Baku there are only low hills. The Gudam Pass, 7,977 ft., which forms the western limit of this section, is the best in Transcaucasia. Over the Vantliashet Pass runs the road from Petrovsk to Tiflis.

The Caucasus is joined to the Little or Anti-Caucasus by the Suram or Mezghian Mountains, a low range averaging 3,627 ft. in height, running from north to south and separating the head-waters of the Rion from those of the Kura.

The Little Caucasus is formed by the eastern and central part of the Russian Armenian Highlands, which occupy the southern half of Transcaucasia, and may be divided into two areas: the mountains which surround Lake Gokcha, of which the highest peak is Mount Alagez (13,436 ft.); and the mountain plateau lying to the west of these, including the plateau on which stand the towns of Alexandropol and Kars. The latter area is somewhat bleak and rugged and is intersected with numerous mountain streams in deeply cut valleys.

The western and southern parts of the Russian Armenian Highlands are composed of spurs of the Pontic Mountains and the Eghri Dagh Mountains. The latter divide the streams which flow into the Black Sea and Caspian from those which enter the Persian Gulf. There is a general elevation of 8,000 ft.; the mountains are bare of timber, have little water, and are very rugged.

The ranges composing western and southern Russian Armenia thus stretch from the south-east corner of the Black Sea 400 miles to the south-east, as far as the Kara Dagh and Salavat Mountains in northern Persia, which link them to the Elburz Mountains at the southern end of the Caspian.

Coasts

Transcaucasia includes about 400 miles of the Black Sea coast. From Cape Taman on the eastern side of the Straits of Kerch, as far as the roadstead of Anapa, the coast line is low and monotonous, with sunken reefs close to the shore. From this point south-east to Sukhum, there are steep cliffs, with deep water close inshore, and occasional beaches at the mouths of small rivers. From Sukhum to Nikolaevsk, south of Poti, the coast is low and flat; and inland from Poti there is

an immense flat alluvial plain forming the delta of the rivers Ingur and Rion. South of Nikolaevsk mountains replace the plain. For a few miles south-west of Batum the shore is formed by the flat delta of the Chorokh.

The eastern frontier of Transcaucasia extends for 450 miles along the Caspian Sea. From the Bay of Agrakhan to the small port of Petrovsk the coast is flat and inclined to be marshy. From thence to a few miles south of Derbent (Derbend) it is steep, but drops farther on to a flat area formed by the deltas of many small rivers. After another rise comes the long, low Apsheron Peninsula, off which there are several islands. From Baku the coast line trends south-west as far as Cape Vezir, beyond which is the Gulf of Salyani. The mountains then begin to approach the sea, and rise to a height of 6,000 ft.; they are thickly wooded to the water's edge.

River System

Most of the rivers are mountain torrents, and, with the exception of the wider and navigable portions of the Rion and Kura, they are all at times fordable. As a rule there is most water in them during the summer and least during the winter. The chief rivers are the Rion, Ingur, and Chorokh, flowing into the Black Sea, and the Kura with its affluents, the Alazan and Aras (Araxes), flowing into the Caspian.

The *Rion* (100 miles) rises between Koshtantau and Kazbek and enters the Black Sea at Poti.

The *Ingur* rises in the highest part of the Caucasus, in the north of the Government of Kutais, and flows in a south-westerly direction, reaching the Black Sea at Anaklia.

The *Chorokh* rises in Turkish territory, and only a small part of its course lies within Caucasia. It crosses the border from Turkish Armenia in the neighbourhood of the mountain region of Didube, south of Artvin, and reaches the sea between Batum and Gonia.

The *Kura* (830 miles) rises in the high plateau north

of Kars and flows north into the Kartalian plain. After turning east through Gori and Tiflis it follows a south-easterly course to the Caspian, which it enters by three mouths. During the months of March, April, and May it is flooded, and inundates the surrounding country at some points to a width of 3 miles. Its chief tributaries are the Alazan on the left bank and the Aras on the right.

The *Aras* (500 miles) rises in Turkish territory, entering Transcaucasia between the villages of Khorasan and Karakurt. It flows east till it is joined on the left bank by the Arpa Chai, passing through the Erivan plateau, and then takes a wide bend towards the south past Nakhichevan as far as Julfa, after which it turns east to Ordubad and then north-east, finally discharging into the Kura. The current is very rapid in the upper course, and also between Julfa and Ordubad, but is moderate from Erivan as far as Nakhichevan. There are many islands in the lower reaches.

In the Russian Armenian Highlands are the only important lakes in Transcaucasia: Gokcha, 540 square miles, at a height of 6,340 ft.; Chaldir, 33 square miles, at a height of 6,520 ft.; and several smaller ones, all at heights between 6,500 and 7,000 ft.

(3) CLIMATE

It is possible to divide Transcaucasia into three climatic areas: the Black Sea basin, the Caspian basin, and the Armenian Highlands.

West of the Suram Mountains, which form a dividing line between the Black Sea and Caspian basins, the atmosphere is moist and temperatures are moderate. The winter is mild, and, though snow falls, it rarely lies; the summer is hot and conditions are unhealthy on the Black Sea littoral. The annual rainfall averages from 60 to 80 inches. Periodical changes of wind are not uncommon, and cause sudden alterations of temperature. The effect of the climate on the country is noticeable;

| Locality. | Height in feet above sea level. | Mean Temperature in Degrees Fahrenheit. | | | | Annual Rainfall in inches. | Prevailing Wind. | | |
|-----------------------|--|--|------|---------|---------|----------------------------------|------------------|------------|------------|
| | | Jan. | May. | August. | Annual. | | Winter. | Spring. | Summer. |
| Black Sea Basin | Batum . . . | 41 | 61 | 78 | 58 | 80-15 | S.E. | — | N.W. |
| | Kutais . . . | 40 | 66 | 76 | 58 | 44-35 | N.E. | N. by E. | W.N.W. |
| | Poti . . . | 43 | 62 | 76 | 58 | 65-30 | S.E. | S.S.W. | S.W. by N. |
| | Sukhum . . . | 44 | 64 | 76 | 59 | 40-47 | S.E. | S.W. | S.W. |
| Caspian Sea Basin | Baku . . . | 38 | 64 | 78 | 58 | 12-86 | — | N.N.W. | N. by E. |
| | Lenkoran . . . | 37 | 66 | 77 | 58 | — | N.W. | S.E. | S.E. |
| | Tiflis . . . | 33 | 63 | 76 | 55 | 18-44 | N.E. | N. by W. | N.W. |
| | Temir Khan Shura (Daghestan) . . . | 26 | — | 73 | 51 | 17 to 21 | S.W. | — | N.W. |
| Armenian Highlands | Alexandropol . . . | 13 | 53 | 66 | 42 | 13-40 | — | N.E. by N. | N.E. |
| | Aralikh . . . | 20 | 65 | 79 | 53 | 6-08 | — | N.N.W. | N.W. by N. |
| | Erivan . . . | 13 | 69 | 80 | 53 | — | — | S.E. | N.E. |
| | Shusha . . . | 33 | 56 | 66 | 49 | 20-79 | — | — | S.E. |

vegetation is abundant, and near the sea semi-tropical in its luxuriance.

East of the Suram Mountains the climate is dry, with extremes of heat and cold. The summer is oppressively hot, particularly in the Kura valley. The Caspian basin, as a whole, suffers from drought, and in the Baku district violent sand and dust storms are common.

The climate in the Armenian Highlands shows characteristics similar to those of the two areas above described. At Alexandropol snow lies till the middle of April, spring lasts a fortnight, and the summer parches the country to the condition of a desert. The Aras valley has a somewhat less rigorous climate.

Recent climatic statistics for the three areas are shown in the table given on p. 7.

(4) SANITARY CONDITIONS

Sanitation in anything like the modern sense of the word is practically unknown in Transcaucasia. Medical facilities, except in the larger towns, are practically non-existent. Constant epidemics of malaria are caused by the marshy conditions prevailing on the Black Sea coast, and in the valleys of the Rion, Aras, and Kura. Goitre and epilepsy are common among the natives of Svanetia. Leprosy occurs among the poorer classes of the Persian population. Elisavetopol is notorious for the so-called Sartian sickness, a kind of skin eruption.

(5) RACE AND LANGUAGE

Of the numerous peoples represented in Caucasia, some belong to the white race, others to the Mongolian or yellow race.

I. The inhabitants who are of white race belong to the Indo-European, Semitic, or Caucasian families.

Indo-European Family.—Everywhere there are *Russian* officials, merchants, and soldiers, and there are also large numbers of peasants, who are either voluntary colonists or religious exiles from European Russia. They speak both Great and Little Russian.

Germans, who came originally from Württemberg, live chiefly in the Tiflis Government and at Helenendorf near Elisavetopol.

There are some 14,000 *Greeks* in Tiflis, near the Turkish frontier, and in Chernomoria. They speak a corrupt form of Greek.

The *Iranians* include *Persians* at Tiflis, who number several thousands; the *Tates*, *Tats*, or *Tads*, descendants of Persian conquerors, who live chiefly in Baku, and speak either Persian or Tatar; the *Talyshes*, who are also of Persian descent, and live in the Lenkoran district; the *Kurds*, who come from the mountains on the Assyrian border, and have spread over a large part of Asia Minor and the Caucasus; and the *Ossetes* (calling themselves *Iron*), who occupy the central mountainous region from Mount Elbruz to Mount Kazbek in the east, and from Vladikavkaz in Ciscaucasia to the district round Dushet and Gori in the Tiflis Government.

The *Armenians* form the merchant and trading class in most of the towns. Armenian peasants are chiefly confined to the Governments of Erivan and Elisavetopol; they are more virile than the townbred Armenians, and cannot be easily distinguished from the Tatars.

Semitic Family.—There are over 45,000 *Jews* in the Tiflis and Kutais Governments and in Daghestan. The Jews of Tiflis and Kutais speak Georgian, those of Daghestan local dialects.

Caucasian Family.—This family is divided into three groups: the Kartalian or southern, the western Highland, and the eastern Highland. The language of the Kartalian group, except when otherwise stated, is Georgian; there are many dialects. The language is distinct from those of the Indo-European family, but has few affinities with other main Caucasian groups. To the *Kartalian group* belong the *Georgians* or *Gruzians*, who form the majority of the population of the Government of Tiflis, inhabiting the upper reaches of the Kura from Akhaltsikh to below Tiflis

and the Yora and Alazan plains as far as Zakatali. The *Imeretians* live in the Kutais Government, west of the Suram Mountains as far as the River Tskhenis Tskhali. The *Gurians* are found between the Rion and the Chorokh. The *Adzharians* and *Kabuletians* live in the Adzharis Tskhali valley in the Batum Province. The *Khevsurs*, *Tushes*, and *Pshavs* are wild mountain tribes belonging to the central Caucasus. The *Mingrelians* inhabit the country between the Rion, Ingur, Tskhenis Tskhali, and the Black Sea. There are a few *Lazis* in the south-west corner of Transcaucasia; most of this tribe live in Turkish territory in Lazistan. The *Svanetians* live in the valleys of the upper Ingur and Tskhenis Tskhali on the southern slopes of the main Caucasian chain.

To the *western Highland group* belong the tribes who call themselves *Adighé*, but whom the Russians call *Cherkess* (Circassians). They used to inhabit the Caucasus range from Taman to Pitsunda and the left bank of the Kuban in Ciscaucasia. They speak a harsh dialect of their own. The *Abkhasians*, who speak a similar dialect, occupy the Black Sea coast from Pitsunda to the Ingur.

Of the peoples in the *eastern Highland group*, the *Chechentsy* or *Chechens* live mostly in the Terek Province, but there are still a few on the Daghestan frontier. The *Lesghians*, including the *Avar*, *Darginian*, and *Kurinian* tribes, are the chief occupants of the Daghestan Highlands. They speak a guttural dialect of their own, though in the east the Azarbaijan Tatar patois is in common use.

II. Of the peoples of Mongolian race the chief are the *Tatars*, who mostly come from the Persian province of Azarbaijan and occupy both banks of the middle and lower Kura, intermingled with Armenian and Kurd colonies. Their language is akin to Turkish, and is the *lingua franca* of western and southern Transcaucasia. There are a few *Nogaitsy* Tatars in Daghestan. The Tatars in Kars Province are known as the *Karapapakhs*. The *Kumyks*, who live on the Daghestan

coast north of Derbent, are closely akin to the Azarbaijan Tatars. The *Turks* or *Osmanli* live chiefly in the Provinces of Kars and Batum. In the Province of Kars there are a few *Turcomans*.

To sum up for Transcaucasia, it may be said that the four important peoples are the Russians, Georgians, Armenians, and Tatars. It is upon these peoples and their mutual relations that the future of the country depends.

The official census of 1897 gave statistics of the various peoples in Transcaucasia. Though with regard to the more remote tribes these figures are only approximate, they are the best available and have served as a basis for all subsequent estimates. The distribution of the various peoples is shown in the following table:

GOVERNMENTS AND PROVINCES¹

| | <i>Baku.</i> | <i>Daghestan.</i> | <i>Elisavetopol.</i> | <i>Kars.</i> | <i>Kutais.</i> | <i>Tiflis.</i> | <i>Chernomoria.</i> | <i>Erivan.</i> |
|---------------|--------------|-------------------|----------------------|--------------|----------------|----------------|---------------------|----------------|
| Abkhassians - | 2 | 28 | — | 7 | 59,469 | 46 | 2 | — |
| Armenians - | 52,233 | 1,636 | 292,188 | 73,406 | 24,043 | 196,189 | 6,285 | 441,000 |
| Chechens - | 10 | 757 | 13 | 63 | 46 | 2,207 | 5 | 3 |
| Cherkess - | 18 | 37 | 10 | 71 | 165 | — | 1,939 | 1 |
| Czechs - | 149 | 19 | 25 | 11 | 167 | 245 | 1,290 | 36 |
| Georgians - | 1,616 | 375 | 1,239 | 526 | 343,929 | 465,537 | 976 | 566 |
| Germans - | 3,430 | 261 | 3,194 | 430 | 1,065 | 8,340 | 748 | 210 |
| Greeks - | 278 | 38 | 558 | 32,593 | 14,482 | 27,118 | 5,969 | 1,323 |
| Imeretians - | 23 | 20 | 119 | 7 | 270,513 | 1,546 | 158 | 9 |
| Jews - | 8,172 | 7,361 | 185 | 1,138 | 7,006 | 5,188 | 990 | 850 |
| Kabards - | 23 | 31 | — | 19 | 7 | 14 | — | — |
| Karachais - | — | 4 | 29 | 6 | 16 | 67 | — | 3 |
| Kумыks - | 26 | 51,209 | 2 | 21 | 24 | 25 | 3 | 5 |
| Kurds - | 8 | 22 | 3,042 | 42,968 | 1,824 | 2,538 | 22 | 49,389 |
| Lesghians - | 62,972 | 450,912 | 22,601 | 524 | 446 | 43,094 | 72 | 124 |
| Lithuanians - | 272 | 520 | 116 | 892 | 450 | 1,263 | 47 | 384 |
| Mingrelians - | 39 | 10 | 37 | 10 | 238,655 | 498 | 304 | 13 |
| Moldavians - | 48 | 66 | 105 | 46 | 197 | 198 | 923 | 29 |
| Nogai - | — | 1,909 | — | 1 | — | 18 | — | 12 |
| Osmanli - | 1,255 | 18 | 9 | 63,547 | 46,665 | 24,722 | 650 | 245 |
| Ossetes - | 113 | 113 | 96 | 520 | 4,240 | 67,268 | 12 | 112 |
| Persians - | 5,973 | 1,720 | 338 | 568 | 1,022 | 1,991 | 210 | 235 |
| Poles - | 1,439 | 1,630 | 616 | 3,243 | 1,938 | 6,282 | 731 | 1,385 |
| Russians - | 77,681 | 16,044 | 17,875 | 27,856 | 23,443 | 85,772 | 34,546 | 13,937 |
| Tatars - | 485,146 | 32,143 | 534,086 | 2,347 | 750 | 107,383 | 291 | 313,176 |
| Tates - | 89,519 | 2,998 | 1,753 | 6 | 34 | 16 | 2 | 709 |
| Turcomans - | 74 | 9 | 4 | 8,442 | 8 | 12 | — | 1 |

¹ The Province of Batum and the District of Sukhum are included in the Government of Kutais. The District of Zakatali is included in the Government of Tiflis.

It will be seen from the above figures that Russians form a majority in Chernomoria only, while the Armenians form a large majority in the Government of Erivan and the Province of Kars, the Georgians in the Governments of Kutais and Tiflis, the Tatars in the Governments of Baku and Elisavetopol, and the Lesghians in Daghestan.

(6) POPULATION

Distribution and Density

The Russian official census of 1897 gave the total population of Transcaucasia as about 5,565,000. Since then various estimates have been made, based upon this census and the yearly increase of the population so far as it could be ascertained.

The Statesman's Year Book for 1918 gives the following statistics (approximate) for the population on January 1, 1915 :

| <i>Area.</i> | <i>Population.</i> | <i>Density per Square Mile.</i> |
|------------------------|--------------------|-------------------------------------|
| Baku | 1,119,600 | 75 |
| Batum | 186,000 | 69 |
| Chernomoria | 201,800 | 63 |
| Daghestan | 732,600 | 64 |
| Elisavetopol | 1,117,200 | 66 |
| Erivan | 1,034,800 | 96 |
| Kars | 403,000 | 56 |
| Kutais | 1,070,300 | 130 |
| Sukhum | 147,600 | 58 |
| Tiflis | 1,394,800 | 88 |
| Zakatali | 101,800 | 66 |
| Total | 7,509,500 | 79 |

From this it will be seen that the population is densest in the Governments of Kutais, Erivan, and Tiflis, where the soil is richest and agriculture is the general occupation. The density of the population in the Government of Baku is largely due to the existence of the oil-fields.

Towns

Tiflis (population in 1913, 327,800) is the capital of Caucasia and the largest town. Next in size is *Baku*

(population in 1913, 237,000). Other important towns are *Novorossiisk* (66,700), *Elisavetopol* (63,400 in 1910), *Kutais* (53,900), *Batum* (46,000), and *Erivan* (34,000). For further particulars concerning these see below, pp. 42 and 77.

Movement

Recent statistics are not available, but the annual rate of increase can be roughly estimated at 60,000. It is probable that the Armenians increase at a more rapid rate than the other nationalities in Transcaucasia. The death-rate, particularly among children, is certainly high; for this the unhealthy climate in the west, the rigorous winters in the east and central parts, and the ignorance of the natives are responsible.

Accurate statistics of emigration are not available. Since the great migration of the Cherkess (to Anatolia) and other Mohammedan tribes (to Turkey), which depopulated much of the western coast in the latter half of the nineteenth century, emigration has tended to be spasmodic. A certain number of Armenians emigrate to America. Many tribes still live what is practically a nomadic life; and for those who are not too proud to do manual labour the towns form a continual attraction.

Immigrants are largely Russians, both official and non-official. The latter come very largely from South Russia and settle in the central governments or, for industrial purposes, at Baku. There is a small annual influx of foreigners, but not to the same extent as in Ciscaucasia. Periodically there have been Armenian immigrations from Turkish Armenia, though these have lately been regarded unfavourably by the Government.

CISCAUCASIA

(1) POSITION AND FRONTIERS

Ciscaucasia, a district of European Russia, is the northern part of the region of Caucasia. It is bounded on the west by the Black Sea and the Sea of Azov;

on the south by the Caucasus and the Province of Daghestan ; on the east by the Caspian Sea ; and on the north by the Kuma-Manych depression, a chain of narrow shallow lakes and river beds filled at certain seasons with water, connecting the Manych, a tributary of the Don, with the Kuma, which flows into the Caspian Sea.

(2) SURFACE, COASTS, AND RIVER SYSTEM

Surface

The parts of the Caucasus range which are included in Ciscaucasia are (1) the *Black Sea ridge*, 155 miles in length, stretching from Anapa on the coast to Mount Oshten (9,369 ft.). These mountains are covered with thick woods. (2) The *Kuban Caucasus*, 120 miles in length, which extends from Mount Oshten to Mount Elbruz. Here the heights vary from 3,000 to 6,000 ft. (3) The *Central Caucasus*, which contains various subdivisions, included for the greater part in Transcaucasia.

The passes across the Caucasus from Ciscaucasia to Transcaucasia are few and are at high altitudes, varying from 9,000 to 12,000 ft. above sea-level.

The northern foot-hills of the Caucasus form on both sides of the River Terek the mountainous region of the Kabarda. North-eastwards from this stretches highland country, which merges into a depression northwards from Stavropol. Between these two there rises the isolated mass of the Beshtau Mountains.

The plains of Ciscaucasia slope gently from the base of the Caucasus Mountains towards the Kuma-Manych depression. In the centre is the Stavropol plateau, which varies in height from 2,000 to 2,500 ft. and separates the tributaries of the River Kuban from those of the Terek and the Kuma. Towards the foot-hills of the Caucasus the plateau is covered with dense forests ; on the west it merges into steppes or ends in the reedy marshes of the Kuban delta. In the north

and east the steppes towards the Caspian and the Kuma-Manych depression are barren and stony or sandy.

Coasts

The coast of Ciscaucasia is flat, and the only ports worth noting are Anapa, Temryuk, and Yeisk. The Ciscaucasian shores of the Caspian Sea are surrounded by steppes and are flat throughout. They are formed chiefly of the alluvial land of the deltas of the rivers Terek and Kuma.

River System

The rivers of Ciscaucasia rise in the central Caucasus. There are three river basins, corresponding with the three administrative divisions.

The River *Kuban* rises on the northern side of Mount Elbruz. It is formed by the Khursuk and the Uchkulan, which unite at Uchkulan. It retains its character as a mountain stream until it enters the plain at Batalpashinsk, at a height of 1,075 ft. The middle course extends from the Cossack settlement of Nevinnomyssk as far as Ekaterinodar. The river bed is wide, but the river itself is a mere streamlet except in times of flood. After the Kuban turns definitely westward the fall is only about 20 inches in a mile.

The largest tributary of the Kuban is the Laba (200 miles), a canal from which at Chamlik irrigates several thousand acres of steppe land. Another large tributary is the Byelaya (150 miles). The Kuban flows by many mouths, forming several islands and *limans* (marshy lagoons), into the Gulf of Kyzyltash. The river is frozen from December to March. In the lower part of its course inundations are frequent, and the district is marshy.

The *Terek* (382 miles) rises on the slopes of Mount Kazbek at Zilga-Khokh, and pierces the mountain range by the Dariel gorge, which it leaves at Vladikav-

kaz, on the high plains to the north of the Caucasus. The Terek bends first north-west, then east, past Mozdok (altitude 441 ft.) and Kislyar (29 ft. below sea-level), and enters the Caspian Sea by several branches. The delta is sixty miles wide, and the river forms large sand-banks opposite its mouths. It does not freeze every year. The chief tributary is the Zunzha, all the others being mere mountain torrents.

On the left bank of the lower river are great steppes, while shifting sand-dunes cover an extensive tract from Mozdok northwards; near the delta is the depression of Kislyar, covered with impenetrable salt morasses, while to the right of the Terek is fertile country.

The *Kuma* (about 400 miles) rises on the northern slope of the Caucasus, and flows by several branches through the sandy steppes towards the Caspian. At times of flood it reaches the sea, but at other seasons its channels disappear in the sandy steppes along the coast. Its tributaries are the Karamyk, Podkumka, and Buivola.

(3) CLIMATE

The climate is continental, and in the winter the cold is severe.

Temperature.

| | <i>Mean Annual Temp.</i> | <i>January (Mean).</i> | <i>July (Mean).</i> |
|-------------------------------------|------------------------------|----------------------------|-------------------------|
| Vladikavkaz (altitude 2,345 ft.) | 47·7° F. | 23° F. | 69° F. |
| Stavropol (altitude 2,030 ft.) | 47° F. | 24° F. | 79° F. |
| Pyatigorsk | 48° F. | 25° F. | 71° F. |

Annual Rainfall.

Terek Province

| | |
|-----------------------|--------------|
| Mountainous districts | 37 in. |
| Steppes | 10 to 20 in. |

Vladikavkaz

34·2 in., of which 25·8 in. falls between April and September.

In the 'black earth' steppes of Ciscaucasia the maximum rainfall is at the beginning of summer; on the eastern steppes, which extend along the Caspian Sea, the maximum is reached in March.

(4) SANITARY CONDITIONS

The science of hygiene is unknown in Caucasian villages, and medical aid is absent or inaccessible in country districts. Malaria is the characteristic disease of Caucasia, but small-pox, scarlet fever, measles, dysentery, typhus, and pneumonia are prevalent and cause many deaths.

In the fashionable health resorts, such as Kislovodsk, Jeliéznovodsk and Pyatigorsk, there are very up-to-date sanatoria established on the latest German lines, to which people come from all parts of Russia to take the waters and the cure.

(5) RACE AND LANGUAGE

Russians form 34 per cent. of the people of Ciscaucasia, and in the Government of Stavropol amount to 90 per cent. In the Province of Kuban 109 per 1,000 are Cossacks; in Terek the proportion is 179 per 1,000. Tatars live in the east and south-east, where they form 19.3 per cent. of the inhabitants. The remainder consists of Kalmucks, Turcomans, Nogai-Tatars, Armenians, Georgians, Germans, Poles, &c. (See also p. 8.)

(6) POPULATION

The population of the three Ciscaucasian provinces on January 1, 1913, was 5,470,600, distributed as follows:

| | <i>Rural Population.</i> | <i>Urban Population.</i> | <i>Total.</i> |
|---------------|------------------------------|------------------------------|---------------|
| Kuban . . | 2,667,000 | 244,800 | 2,911,800 |
| Stavropol . . | 1,232,400 | 79,700 | 1,312,100 |
| Terek . . | 1,015,100 | 231,600 | 1,246,700 |

Towns

Ekaterinodar (population in 1897, 65,697, now about 107,000), the capital of the Province of Kuban, is

situated on the left bank of the Kuban river, 100 miles from its mouth and 125 miles south of the Sea of Azov. Other towns are *Anapa* (population in 1897, 6,676), a port; *Batalpashinsk* (8,100); *Maikop* (in 1902, 34,191, now about 50,000); *Temryuk* (in 1897, 14,479), a fortified town and port; *Yeisk* (in 1897, 35,446, now about 50,000), a port on the Sea of Azov.

In the Province of Stavropol, *Stavropol* (population in 1897, 41,621, now about 60,000), which is strongly fortified, is the chief town.

In Terek, *Vladikavkaz* (population in 1897, 49,924, now variously estimated at 53,000 to 79,000) is the capital, and is an important centre of communications. Other towns are *Mozdok* (in 1897, 14,583), 50 miles north of Vladikavkaz; *Georgievsk* (11,532), a fortified town on the Podkumka; *Kislyar* (7,353), on the road from Astrakhan to Derbent; *Kislovodsk* (4,078), a Cossack town with hot saline springs.

On the steppes or prairies of the Caucasian Highlands and along the Kuban river there are many prosperous Cossack villages with considerable populations.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- B. C. 323. Conquest by Alexander the Great.
 302–237. Pharnawaz expels the Macedonians.
 c. A. D. 318. Introduction of Christianity. Conflict with Persia.
 371. Shapur II of Persia subdues the country.
 446. Vakhtang I. Alliance with Persia.
 571. Beginning of Bagratid dynasty.
 640–734. Spread of Mohammedanism by the Arabs.
 1048–64. Incursions of the Seljuk Turks.
 1099–1125. Reign of David II.
 1184. Accession of Tamara.
 1236. Invasion of Ghenghiz Khan.
 1386 and 1393–94. Invasions of Tamerlane.
 1442. Partition of Georgia by King Alexander I.
 1492. First appeal for Russian assistance.
 1586. Defensive treaty with Russia.
 1619. Russian intervention between Shah Abbas I and Teimuraz of Kakhetia.
 1638. Mingrelia swears allegiance to Russia.
 1650. Imeretia swears allegiance to Russia.
 1717. Commercial treaty between Peter the Great and Persia.
 1722. Russian expedition in the Caucasus.
 1724. Russo-Persian Treaty. Cession of Caspian provinces to Russia.
 1734. Surrender of Caspian provinces to Persia. Restoration of Bagratid dynasty.
 1769. Heraklius obtains Russian assistance against the Turks.
 1783. Treaty of Georgievsk. Heraklius declares himself vassal of Russia.
 1801. Annexation of Georgia by Russia.
 1813. Treaty of Gulistan between Russia and Persia.
 1828. Peace of Turkmanchay. Final peace with Persia. War between Russia and Turkey.
 1829. Peace of Adrianople.
 1830. Risings in Daghestan.
 1859. Surrender of Shamyl and his tribesmen.
 1877. Russo-Turkish War. Ineffectual risings in the Caucasus.
 1878. Treaties of San Stefano and Berlin. Acquisition of Batum, &c. Development of Baku oil-fields.

- 1902-5. Riots in Baku. Rising in Georgia.
1917. Treaty of Brest-Litovsk. Batum, &c., ceded to Turkey.
1918. Georgian, Armenian, and Daghestan Republics established.

(1) *Early History*

THE Caucasus was well named by the Arabs 'Jebel Assuni', the Mountain of Languages, for the great range shelters as many different tongues as the famous Tower of Babel.

The lands stretching from the valley of the Phasis (Rion) north-eastwards were known to the ancients as Colchis and Iberia. The name 'Georgia' came later to be applied to the kingdom whose nucleus is covered roughly to-day by the Government of Tiflis; at the height of its power Georgia ruled from the Caucasus to the Aras (Araxes), and from the Black Sea to the Caspian.

Recognized history begins with the conquest of the country by Alexander the Great in 323 B.C., and the subsequent expulsion of the Macedonian governors by Pharnawaz, son of a prince of the original dynasty and a Persian mother. The chronicles of the period that follows make constant mention of the Abkhasians, who held the Black Sea coast and range from the Phasis north-westwards; of the Asses or Osses (Ossetes), a Median tribe whose territory lay in the hills from Mount Elbruz to the Dariel Pass; and of the incursions of Mongol Khazars and Alans from the steppes of the Caspian Sea, to meet which the fortress of Dariel was built at the northern end of the defile in 140 B.C. Persia, in war and peace, was the predominant factor, though her hold on the allegiance of Caucasia was insecure.

At a later period the introduction of Christianity, about A. D. 318, reopened the conflict with Persia. Shapur II ravaged the country in 371, and the general left by him to hold the conquered lands built a fortress on the site of the present city of Tiflis.

The Georgians now began to seek help from their co-religionists in the Roman Empire, but Persia was

too near at hand to be resisted; and, when in 446 a strong king—Vakhtang I—arose in Georgia, although he re-established Christianity, he adopted a policy of union with Persia and assisted in the campaigns against the Roman Emperor Jovian. Vakhtang not only achieved great military successes, but built schools for his subjects and strengthened his frontiers. He also transferred the capital from Mtskheta to Tiflis.

(2) *Bagratid Dynasty. Struggle with Islam*

The line of Vakhtang failed in the sixth century; and, Byzantium's power being then in the ascendant, the Georgian throne was filled in 571 by a nominee of the Greek Emperor, one Guram, a Bagratid, whose descendants held the Georgian crown for the next twelve centuries. The supremacy of Byzantium in the Caucasus, always fiercely challenged by Persia, was finally extinguished by the Arabs, who from 640 onwards constantly invaded the Caucasian States and spread Islam amongst the pagan mountaineers. The successes of Musslimieh in 684 and of Abu Moslem in 734 ended in the undisputed sovereignty of the Caliphate; the Bagratid dynasty was, however, confirmed in the possession of the Georgian throne.

In the eleventh century the Seljuk Turks under Toghrul Bey and Alp Arslan twice laid Karthli (Georgia) waste, forced the king to embrace Islam, and sacked Tiflis. But the Georgians still resisted and clung to Christianity; they regained their religion and their freedom under David II, who bears the title of Restorer (1099–1125). The constant wars and invasions had split the country into separate kingdoms; cities and surrounding regions bestowed on emirs, vassals of the Seljuks, constituted a bewildering crowd of Moslem principalities, with each of whom in turn Christian Georgia was at war. The distant successes of the Crusaders had their effect on the Caucasus, and, fighting courageously against the encroaching Moslems, the Bagratid kings gradually won back their lost lands.

The great-granddaughter of David II, Tamar or Tamara, succeeded her warlike father Giorgi III in 1184 and cleared her country of invaders from the Caucasus to the Aras. Her son, Giorgi Lashi, 1212-23, added Gandja (now Elisavetopol) to Georgia; but his sister and successor, Rusudan, offended the Sultan of Khorasan, and his vengeful invasion was followed in 1236 by that of the hordes of Ghenghiz Khan, who ravaged the country and carried off Rusudan's son as hostage. Georgia next passed through the hideous devastations of Tamerlane in 1386 and 1393-4. Alexander I freed the country from Tatar rule (1413-42), but, having united Georgia as in the days of Pharnawaz, Vakhtang, and Tamara, he committed the irreparable error of dividing it between his three sons. Civil war broke out, and Guria, Mingrelia, Svanetia, and Abkhasia were lost for ever to the Georgian kings. Too weak to maintain themselves, the various states became the pawns of the Porte and Persia, the Turks taking Trebizond and Sukhum and establishing their hold on Mingrelia, Guria, and Imeretia, the larger portion of which territories accepted the Moslem faith. Karthli and Kakhetia, nominally under Persian vassalage, cast about for help.

(3) *Growth of Russian Influence*

On the northern side of the Caucasus, where the Khazars, now displaced by the Tatar hordes, had ruled, the growing power of Russia was making itself felt.

So early as 1492 the King of Kakhetia had sought Russian assistance against the Turks and Persians; and outposts of this new power appeared in the valley of the Terek in 1505, in the shape of Cossacks of Riazan, who, at first fugitives from their Tsar's wrath, were in 1579 holding territory near the present Grozni in the name of the Tsar, Feodor Ivanovich. Alexander II of Kakhetia appealed to him for help against the Tatar Shamkhal of Tarku; and in 1586 a treaty was concluded in which the Tsar exacted a yearly tribute in return

for his assistance. Co-operation between the new allies broke down at the first effort, which resulted in the annihilation of the Russians on the Sulak; and, although the Tsar assumed the titles of 'Lord of the Iberian Lands, of the Tsars of Georgia and of Kabarda', further defeat in 1604, at the hands of the Russian generals Burtuvlin and Pleshchaghev, was a poor confirmation of these claims. The Georgians, however, continued to look for Russian intervention. In 1619 Teimuraz of Kakhetia, then in hiding, obtained the Tsar's intercession with Shah Abbas I of Persia, who had driven the last king, Alexander, from his throne on suspicion of treachery.

Mingrelia in 1638, and Imeretia in 1650, swore allegiance to Russia in return for help against the Porte, which the Tsars were not able to furnish; and the appeal of Vakhtang VI of Kakhetia to Peter the Great was little more efficacious. With a view to establishing trade with India by way of the Volga and Caspian, Peter had made a treaty with Persia in 1717, and he undertook an expedition in 1722 ostensibly to avenge an affront to his traders by the Lesghians, who were in revolt against Persia, then in the throes of the Afghan invasion. The expedition was, in fact, merely a pretext for annexing the Caucasian possessions of Persia. Peter took Derbent and Tarku, and established further Cossack settlements between the Terek and those of the Grebentsi, as the Cossacks about Grozni were termed; the treaty concluded by Peter with Turkey and Persia in 1724 gave to Russia Derbent, Baku, Daghestan, Astarabad, and Mazandaran, but acknowledged Turkey's suzerainty over Georgia. After the Persian revolution of 1734, however, Russia surrendered her Persian provinces to Nadir Shah, who expelled the Turks from Georgia, and restored the Bagratid dynasty. The Cossack settlements in the Caucasus remained and increased, gradually including Kumyks, Chechens, and Kabards. In 1763 the Prince of Little Kabarda became an Orthodox Christian and swore allegiance to the Tsar; and the fort of Mozdok was built for his protection

against the Lesghians. While Russia's influence grew in the east, in the western Caucasus the Ottomans took tribute from the Cherkess (Circassians) and the Abkhasians (nominally of the Moslem faith), continued to dominate Mingrelia and Imeretia, and held, as a Pashalik of the Empire, Akhaltsikh, the centre of the slave-trade in Georgian boys and girls. In 1769 King Heraklius (Irakli) of Georgia made an effort to shake off the Turk. Brother-in-arms of Nadir Shah, whom he had accompanied on an expedition to India (1738-39), and who had bestowed on him the crowns of Karthli and Kakhetia in return for his successful campaigns against the Lesghians, Heraklius, though the vassal of Persia, knew her to be helpless from internal troubles, and therefore made an agreement with Russia, which procured him the support of an army under Count Tottleben in his effort to deliver Imeretia. Tottleben left Heraklius to subdue Akhaltsikh alone, relieved Kutais, failed at Poti, and returned to Russia without accomplishing anything of value. Heraklius continued a valiant struggle against the Turks and the Daghestan tribes, their allies, until Russia's conquest of the Crimea in 1783 again awoke hopes of aid. By the Treaty of Georgievsk (1783) he openly acknowledged himself vassal of the Empress Catherine, who was steadily increasing her grasp of the Caucasus. Vladikavkaz was founded in 1785 on the site of the Ossetian village, Zaluch, adding another link to the chain of forts stretching from the Caspian to the Azov. Ten years later Persia was again strong enough to attempt the recovery of her lost suzerainty; in 1795 Aga Mohammed Khan suddenly marched on Georgia, and, while the Russian general, Count Gudovich, remained inactive, Tiflis was sacked and the country put to fire and sword. Not until the autumn of 1795, when the disaster was complete, did troops under Zubov attack and defeat the Persians at the mouth of the Kura. The Emperor Paul recalled his army next year, and Heraklius died in 1798, leaving his country a prey to Turk and Persian.

(4) *Annexation of Georgia*

His son and successor, Giorgi XIII, was utterly unable to cope with the situation, and, in their extremity, the Georgian nobles offered the country to the Tsar. The deed of surrender was signed by the King in 1799, and in 1801 Georgia, Mingrelia, Guria, and Imeretia were declared by the Tsar Alexander I to be Russian provinces. The royal family, except some insurgent members of it, were transferred to Russia, where they received estates and pensions. A Georgian noble, educated in Russia, Prince Tsitsianov, was made Governor of the new territories; the Georgian Church was incorporated with the Russian; the Russian code of laws was established, but modified and adapted at first to national custom and the code of Vakhtang VI.¹ The poverty of Georgia necessitated a large Russian subsidy to maintain the government and troops, the very small existing revenue being devoted to the gradual restoration of the towns. Tsitsianov began the great military road by the pass of Dariel between Vladikavkaz and Tiflis in 1804, stormed Gandja, 1805, and perished before Baku. The Turks held Imeretia against Russia, assisted by King Solomon until his death in 1815; the small kingdom was then absorbed into the other provinces.

(5) *Treaty of Gulistan*

War continued between Russia and Persia for the possession of Karabagh² and Shirwan³ until 1813, when the Treaty of Gulistan finally ceded them to Russia, together with Sheki, Talish, Gandja, Kuba, and Derbent. It remained to hold the new territories, where the Moslems of Daghestan and Chechnia defied Russia's power for half a century to come. The Cossacks were the means chiefly relied on to overawe

¹ This was superseded by the Russian Code in 1841.

² Now the Shusha, Jevanshir, Sangesur, and Jebrail districts.

³ Now the Shemakha, Geokchai, and Jevat districts of the Baku Government.

the independent mountaineers ; forts along the Terek and the Sundja were multiplied. General Yermilov, appointed Governor and commander-in-chief in 1816, grappled with the problem in a spirit of ferocious severity that even outdid that of the tribesmen. The Lesghians were the first to feel the weight of his hand, next the Chechens ; but the sullen quiet his methods for the moment produced was broken by war with Persia in 1826.

(6) *Wars with Persia and Turkey, 1826-9*

Yermilov's strange inactivity at the outset of hostilities caused his recall and the appointment of Prince Paskievich, whose capture of Erivan and other successes resulted in the Peace of Turkmanchay in 1828, by which Russia acquired the khanates of Erivan and Nakhichevan. Paskievich then devoted himself to the Turkish campaign, Russia having taken up the cudgels for Greece. Kars and Akhaltsikh fell successively ; and Paskievich, recruiting his ranks from Tatars and Armenians in Transcaucasia, supported by Guria, hitherto suspected of Turkish sympathies, advanced into Armenia and occupied Erzerum. When he retired at the Peace of Adrianople in 1829, the fortresses of Akhalkalaki and Akhaltsikh and the greater part of the pashalik of Akhaltsikh were added to Russia.

(7) *Muridism ; War with the Tribes in Daghestan and Chechnia, 1830-59*

The Mohammedan tribes who had risen in the hills in response to Turkey's call to arms now absorbed Russia's attention. On the extreme west, from the mouth of the Kuban to Mount Elbruz, the Cherkess and Abkhasians, in communication with Turkey by the Black Sea, kept up desultory warfare until 1864. The chief threat to Russia's supremacy lay, however, in the east, in the regions of Chechnia and Daghestan, where the doctrine of Muridism, inciting the tribes to a holy

war against Russia, was preached by the Imams Kaza Mullah, Hamzad Bek, and Shamyl, and in time united the tribesmen from the Caspian to the Dariel Pass. Between the two districts lay tribes submissive to Russian authority, the Khevsurs, Pshavs, Tushes, Svanetians, Ossetes, and Kabards. The forts stretching from the Sea of Azov to the Caspian were held by Cossacks, organized into various *voiskos*, which from 1832 each represented a regiment and became part of the Imperial military organization. The Cossacks kept up the roads and the postal service, provided maintenance for the drafts of Imperial troops sent to reinforce the line, and cultivated the land, drawing labour from the friendly tribes, who were obliged to give their services for fixed periods. The Cossack himself was soldier and farmer in one, ploughing his fields with his gun at his side, ready for the signal of cannon-shots that collected the settlers—two were a call to arms, four signified a raid, eight an attack in force—signals which in case of need were passed from fort to fort. The enemy around them was brave, desperate, animated by religious fervour and by the fierce doctrines and examples of Kaza Mullah, slain at Ginri in 1831, and his disciples, Hamzad Bek and Shamyl, the latter of whom became leader in 1834 and began in failure, through the defection of the Avars, the most powerful of the Daghestan tribes. Four years later, Shamyl's efforts won back the Avars, and by 1845, in spite of frequent reverses, his word swayed the whole country-side.

The absence of roads and the length of the Russian line of communications favoured the tribesmen operating, in Daghestan, on a wild barren plateau intersected by deep ravines, and in Chechnia amid hills covered with dense forests. Punitive expeditions had no lasting effect. The one undertaken by Prince Vorontzov in 1845 against Shamyl's Chechnian stronghold, Dargo, resulted in the loss of two-thirds of the Russian troops in a terrible return march through the forest, and increased the Murids' confidence. Next

year Shamyl broke past the Sundja forts and appeared in Kabarda; but the aid of the western Caucasus failed him. The Russians now adopted a plan, conceived by Yermilov's lieutenant, Veeliamenov, but never before put in practice—that of gradually advancing the Russian defensive line, and of systematically clearing away the forests as the troops closed in on Shamyl. So well aware was the Imam of the value of the screening trees that his law ordained the death of any Murid who should fell one.

Prince Vorontzov's operations were delayed by the events of the Crimean War, made memorable in these regions by General Williams's defence of Kars for five months against overwhelming numbers. The tribesmen took no concerted action with Turkey, and, in spite of the awe Shamyl still inspired, his severity was gradually loosening his hold. Veden, his second stronghold, was captured in 1858, and his escape to the valley of the Andi Koisu only delayed his capture to the following autumn, when he was surrounded at Gunib and taken prisoner by Prince Bariatinski. All the tribes laid down their arms; the reluctant submission of the Abkhasians and Cherkess followed in 1864. These peoples steadily migrated to Turkish territory.

(8) *War with Turkey, 1877*

When war again broke out in 1877 between Russia and the Porte, Daghestan, Chechnia, Circassia, and Abkhasia rose in response; but there was again no concerted action, and the tribes soon quieted down after the signing of peace. The Treaties of San Stefano and Berlin (1878) added to Russia Kars, Bayazid, the country as far as Soghanlu Dag (including the valuable rock-salt mine of Kulp), Ardahan, and Batum, which was declared a 'free port' and attracted commercial enterprise. The Baku oil-fields, exploited now by foreign capital, opened up an undreamt-of source of wealth, by which Tatars and Armenians chiefly profited. The Georgians took little part in these

developments; the people, brave and energetic in national emergencies, were unenterprising and unambitious; the nobles, much impoverished by the Act of Emancipation which restricted their right to the labour of the people, lived on their estates or served in the army; Armenians and Tatars were the energetic elements of the very heterogeneous populations, and many amassed huge fortunes in the oil-fields or concerns connected with them.

(9) *Revolutionary Movement, 1902-6*

It was among these elements that trouble first broke out (1902-5) in the terrible riots at Baku at the time of general unrest in Russia which followed the war with Japan. Political agitation had its effect on the western Georgians, awaking dreams of autonomy which the ill-judged government of the last few years had put them in a state to welcome. The Caucasus was placed under martial law; the outbreaks in the Government of Kutais were suppressed with the utmost severity by General Alikhanov; and during 1906 tranquillity was generally restored. But neither the oil-fields of Baku nor the trade of the port of Batum recovered their former prosperity; and the attitude of the Armenians, whose schools and cherished Church property were threatened by the Russian Government's policy of nationalization, continued to be resentful, while the Pan-Islamic sympathies of the Tatars were carefully encouraged by Turkey.

(10) *Effect of the Great War, 1914-18*

With the outbreak of the European War in August 1914, the old antagonism of Christian against Moslem reappeared. Russia's successes in Armenia at first held in check the Mohammedan element in her midst; but, after the internal revolution of March 1917, the situation became increasingly difficult. Though till that date Georgians and other Transcaucasians alike

had fought gallantly in the Russian armies, an anti-Russian spirit now began to make itself felt, and in May 1917 Georgia proclaimed the spiritual independence of her Church. Meanwhile, after a period of internecine war, the mountaineers of Daghestan formed a separate republic, which was peaceably disposed towards the temporary republic created in Transcaucasia (see p. 33), where Armenians and Georgians were loyally upholding the Allied cause and keeping the gates against Turkey.

In Georgia the movement for autonomy had been rapidly growing ; and on May 26, 1918, two hours after the dissolution of the Transcaucasian Diet—which had been formed from Georgians, Armenians, and Tatars to uphold some form of order—the Georgian National Council, elected in the previous November, proclaimed the independence of their country. Within a week or two, cut off from supplies, and without resources, with the Baku Tatars actively assisting Turkey in the East, the Georgian Republic was obliged to fulfil the terms of the Treaty of Brest-Litovsk and cede to Turkey the disputed districts of Batum, Ardahan, Akhalkalaki, and Akhaltsikh.

Meanwhile the Armenians and Tatars also claim to have established separate independent republics, with capitals respectively at Erivan and Baku. The capital of the Georgian Republic is at Tiflis.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE State religion of Russia is the Orthodox Faith, to which the Georgians conform. Their independent Church, which broke off from the Armenian in A. D. 542, was absorbed into the Russian Orthodox Church in 1811, and the existing Georgian Church property, amounting to some 700,000,000 roubles, confiscated. The twenty Georgian bishoprics were reduced to six. The Katholikos Patriarch was officially known as the Exarch of Georgiá and Archbishop of Karthli and Kakhetia; he had a seat in the Holy Synod at Petersburg.

Since the revolution of 1917 the independence of the Georgian Church has been re-established, and Bishop Kirion has been consecrated Katholikos Patriarch of Georgia.

The Armenians form an independent Church with a Katholikos at Echmiadzin.

There are numerous sects among the Russian settlers (Dukhobortsi, Molokani, or 'milk-eaters', and Skoptsi), who are for the most part nonconformists exiled from Russia. There are also various sects among the Cossacks.

The German colonists are Protestants and sectarians.

The Svanetians, Khevsurs, and Ossetes are nominally Christians of the Orthodox Faith.

The Tates and Azarbaijan Tatars are Shiah Mohammedans.

Chechens, Lesghians, Kabards, Lazis, Cherkess, or Adighé, Abkhasians, Kumyks, and Karachai Tatars are, with rare exceptions, Sunni Mohammedans.

(2) POLITICAL

The title and powers of Viceroy of the Caucasus were revived in 1905; the Viceroyalty had been abolished in 1882 in favour of a Governor-Generalship, directed and controlled by a Caucasian Committee at Petersburg.

The Viceroy's powers comprised :—the supreme civil administration of the Provinces and Governments making up the Caucasus region, the command of all the troops quartered in the Caucasus, the framing of any new regulations necessary in his administration, together with a seat on the Council of the Empire and the title of Ataman of the Cossacks in the Caucasus. There was a civil Governor at the head of each Province or Government (*gubernie*), except those of Daghestan, Sukhum, Batum, and Kars, where the Governor was a military official. The *gubernies* were divided into districts, governed by *nachalniks*, and the districts were divided into communes (*volosts*), each presided over by an elder (*volostnoi starshina*), elected by the community. The *volosts* were made up of villages under elected headmen (*starosts*), assistants to the communal elder. In each village every tenth man had to take his turn in assisting in the preservation of law and order; these were known as tenth men (*desyatniks*).

There were District Courts (*okrujni sud*) in five Transcaucasian Governments—Tiflis, Kutais, Elisavetopol, Erivan, and Baku. These also constituted courts of appeal from the lower courts. Each minor division had two stipendiary magistrates; civil cases, to the value of 2,000 roubles (£200), appeared before one, and minor police cases before the other. The rural judges (*selskiya sudya*), or the *kandidati* in their stead, investigated all complaints and settled disputes; the number of these *selskiya sudya* could not exceed twelve in each district, and their decisions were subject to the *volostnoi starshina's* approval. Beneath these officials again were elected arbitrators, to settle questions of trespass or damage to property. Appeals

from the District Courts' decisions could be taken to the Supreme Court at Tiflis, and from that to Petersburg. The Courts were accessible and cheap, and there was no discrimination between Russian subjects and foreigners in legal proceedings; but judgements given in Russian Courts had no effect in England, nor decisions obtained in England in Russia.

The Cossack communities are divided into *stanitzas* or villages, each *stanitza* having an elected assembly of 30 members; in populous *stanitzas* one man is elected from every ten households. These assemblies have wider powers than the usual *mir* or commune, viz. division of land, assessment of taxes, regulation of schools, grain stores, cultivation, &c., and the election of elders (*ataman*) and judges.

When the Revolution occurred in 1917, the Viceroy was recalled, and the various nationalities in the Caucasus arranged representative National Assemblies; but, as chaos in the Empire increased, relations were broken off with the Central Government. A separate Transcaucasian Republic was formed, in the Government of which Armenians, Tatars, and Georgians were equally represented; and another new state called the Republic of Daghestan, under the presidency of a Lesghian of the Mohammedan faith, also emerged. The Cossacks, however, remained aloof.

(3) EDUCATIONAL

Public education was in the hands of the State, or was directly controlled by it. The number of persons able to read or write in the Caucasus in 1912 was only 17 per cent., and the percentage of schools to the population was very low. Some progress was made in the provision of instruction during 1912 and 1913, but the outbreak of war hindered the completion of the various schemes put forward, in particular by the towns of Anapa, Novorossiisk, Yeisk, Temryuk, Maikop, Grozni, Georgievsk, Pyatigorsk, and Stavropol in

Ciscaucasia, and Tiflis and Baku in Transcaucasia. In 1913, 3,665 elementary schools were open, and this number was to be increased to 4,220. Secondary or middle schools, divided into Realgymnasias, Gymnasias, and Progymnasias, were also on the increase. The Province of Kuban had the largest number of secondary schools (27), and the Province of Kars the lowest (2). Schools and institutes for the training of teachers were on the increase, and the Polytechnic Institution in contemplation at Tiflis was to embrace agricultural, chemical, economic, and mechanical sections. £210,512 had been collected for this purpose, of which Baku had contributed £42,105, with the petition that a mining section should be added. The Board of Education in 1913 granted permits for 57 new private schools, of which about 234 existed. Movable summer schools for the education of the nomad tribes were attempted for the first time in 1913 in the Governments of Erivan and Kutais. The industrial schools included 22 secondary and lower-grade technical schools, 5 trade schools, 14 lower-grade trade schools, and 3 charitable trade schools.

GENERAL OBSERVATIONS

For nearly a century this region, inhabited by small nationalities of pronounced racial feelings and varied religions, has been welded together by the constraining force of a single dominant power.

The Mohammedan hill-tribes, conquered by superior force, unprogressive, brave, and violent by nature, valued their lost independence more than the peace which Russia's strong hand and impartial justice secured. The Christians, on the other hand, at first grateful for the protection afforded them, began, with increased education and a higher standard of living, to resent the effects of autocratic government and the cramping economic conditions.

The disturbances of 1902-5, though they were

sternly repressed, left seeds of unrest behind them ; and the provinces were probably on the road to a serious effort to secure autonomy, when the European War, and later the Russian Revolution, shattered the existing system. Since May 26, 1918, when the Transcaucasian Diet proclaimed its own dissolution, there have existed three independent republics in what used to be Russian Caucasia—the Armenian Republic, the Georgian Republic, and a Tatar Republic in the eastern Caucasus. Of these the eastern republic presents by far the most formidable problem. It is manifestly impossible to leave the Tatars of the eastern Caucasus, with the wild hill-tribes of Daghestan, to their own devices. The vital importance to Europe of the oil-fields in this region makes the problem here exceptionally pressing.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads*

IN an area of 181,173 square miles there were in the Caucasus in 1912 only 1,950 miles of macadamized road and 5,300 miles of unmetalled road. Progress was being made in some parts, but in others the roads were falling into disrepair. After the outbreak of war important work was carried out on some of the main roads, and in 1915 and 1916 several new military roads were constructed over the Turkish frontier.

The main artery of the country, running from north to south, is the Mozdok-Vladikavkaz-Tiflis-Erivan road, 382 miles in length. The Vladikavkaz-Tiflis section, which crosses the main range of the Caucasus by the Dariel Pass, is known as the Georgian Military Road, and is a fine piece of engineering. There is a motor-car service, run by a French company, along this section.

Two unmetalled roads lead northward from Mozdok—the one runs north-west to Alexandrovskoe, whence a metalled continuation goes to meet at about 25 miles north-east of Stavropol a metalled road from Stavropol to Divnoe near the Astrakhan frontier; the other runs north-east into Astrakhan, dividing at Senkina, some 15 miles from Mozdok, into two branches, both of which eventually cross the border.

A road runs south-westward from Tiflis to Kars, a distance of 167 miles, and is metalled for part of the way.

An important road, the Ossetian Military Road, runs north-west from Vladikavkaz to Ardonskaya and thence

south-west to Kutais, a distance of 191 miles. It crosses the Caucasian main range by the Mamison Pass.

The most important road from west to east is the Kutais-Tiflis-Elisavetopol-Shemakha-Baku road, with a total length of 542 miles. The Kutais-Tiflis section is known as the Imeretian Military Road.

There are also coast roads along the shores of the Black and Caspian Seas:

On the Black Sea coast a metalled road begins at Anapa, passes through Novorossiisk, 30 miles to the south-east, and runs along the coast to Sukhum and Ochemchiri, where it turns inland, dividing at Novo-Senaki into two branches which meet again at Kutais. The coast section was being improved in 1913.

Other roads terminating on the Black Sea coast are the Armavir-Maikop-Tuapse road, 166 miles long, the Akhaltsikh-Batum road, 110 miles long, and the Akhal-kalaki-Artvin-Batum road, 200 miles long. The first of these is now to some extent superseded by the recently constructed railway following the same course. Batum lacks road connexions with the north.

Along the Caspian coast there is a road, for the most part unmetalled, from Astrakhan to Baku, a distance of 600 miles; and there is a road, metalled except where it crosses the Vantliashet Pass, from Petrovsk, on the Caspian, to Tiflis.

Road communications between the Caucasus and Russia are very few, the only ones of importance being the above-mentioned road along the Caspian littoral and one from Stavropol to Rostov-on-Don.

(b) *Rivers and Canals*

Few of the numerous rivers of the Caucasus are navigable, and those are used to a limited extent only for transport. The floating of timber to the seaboard for shipment is the principal traffic in almost every case.

In Ciscaucasia the Kuban and the Terek have navigable stretches. The *Kuban*, which flows into the

Sea of Azov, is navigable by light-draught steamers for 141 miles from its mouth. On the river and the various tributaries forming its basin there are 964 miles of water suitable for floating timber. The *Terek*, which flows into the Caspian, is navigable by light vessels for 112 miles from its mouth, but there is no steamer traffic. Timber can be floated for 320 miles. It has no tributaries of importance.

In Transcaucasia the navigable rivers are the Chorokh and Rion, emptying into the Black Sea, and the Kura, emptying into the Caspian. The *Rion* is navigable for 83 miles from its mouth at Poti, but no steamers can be used. Timber is floated or rafted for 123 miles. The *Kura* is navigable for 390 miles from its mouth, and of this distance 197 miles are suitable for steamers. Including its tributaries, the basin of the Kura provides 1,098 miles of water upon which timber-floating is possible.

All these navigable waters were under the care of the State, which, through the Ministry of Ways and Communications, was responsible for their maintenance and improvement.

There are no navigable canals in the Caucasus. For irrigation canals, see p. 59.

(c) *Railways*

In 1912 there were 2,442 miles of railway in the Caucasus, 994 miles being in Ciscaucasia and 1,448 miles in Transcaucasia. These are generally of 5-ft. gauge, and, with certain exceptions indicated below, are of single track.

Principal Railways.—There are two principal railway systems—the Vladikavkaz and the Transcaucasian. Both were constructed and maintained originally by private companies, but the latter was acquired by the State in 1906.

(i) The main line of the *Vladikavkaz Railway*, 819 miles in length, runs from Rostov-on-Don (where con-

nexion is made with all parts of Russia) to Baku, *via* Tikhoretskaya, Kavkazkaya, Armavir, Mineralniyavodi, Beslan, Grozni, Petrovsk, and Derbent. From Tikhoretskaya to Mineralniyavodi the track is double.

There are four principal branches: one runs from Tikhoretskaya to Tsaritsin on the Volga, 333 miles; another from Tikhoretskaya to Ekaterinodar, and thence as a double line to Novorossiisk, 170 miles in all; a third from Kavkazkaya to Ekaterinodar, 85 miles; and a fourth from Kavkazkaya to Stavropol, 93 miles. There are also short branches from Mineralniyavodi to Kislovodsk and other watering-places, from Kotlyarevskaya to Nalchik, and from Beslan to Vladikavkaz.

The Vladikavkaz Railway is considered to be one of the most profitable and best-managed private lines in Russia. The company's original concession expired in 1911, but was renewed for fifteen years, and thereupon various improvements and plans for new branches and terminal facilities were undertaken.

The receipts in 1912 amounted to £5,845,100, and the expenses to £3,137,400, leaving a net profit of £2,707,700, less the sum of £348,400, which the State received in accordance with the rate fixed in the company's statutes. In 1910, the latest year for which such figures are available, the railway carried about 8,000,000 tons of goods.

(ii) The *Transcaucasian Railway* runs from Batum to Baku, a distance of 563 miles, *via* Samtrëdi, Rion, Sharopan, Michailovo, Tiflis, and Elisavetopol. From Akstafa to Elisavetopol and from Adji-Kabul to Baku the track is double. The railway also owns an 8-in. pipe line from Baku to Batum, which is capable of delivering 1,600,000 tons of oil per annum.

There are six principal branches: from Samtredi to Poti (41 miles); from Rion, *via* Kutais, to Tkvibuli (33 miles), serving the coal-mines at the latter place; from Sharopan to Sachkeri (narrow gauge, 33 miles), serving the Chiaturi manganese mines; from Michailovo, *via* Borzhom, to Bakuriani; from Tiflis, *via* Alexandropol and Kars, to Sarykamish (226 miles), with

a branch from Alexandropol to Julfa on the Persian border (206 miles), and thence to Tabriz; and from Baku to Sabunchi (double track, 12 miles), with a single-track branch (3 miles) to the Surachani oil-field.

The receipts of the Transcaucasian Railway in 1911, the latest year for which figures are available, were £1,983,455, and the expenses £1,293,485. In 1910 the railway carried 6,000,000 tons of goods. The working of the railway was said to give cause for dissatisfaction in many respects. High freights, deficient rolling-stock, and undue delays were complained of by traders; but though the management made promises of amendment, these had not been fulfilled when war broke out.

(iii) An independent company, the *Armavir-Tuapse Railway Company*, was the owner of the line, 166 miles long, which runs from Armavir through the Maikop oil-fields to the port of Tuapse. This line was provisionally opened for traffic in 1914 and completed in 1916. No figures as to its working are yet available. Proposed extensions are referred to below.

Railways under construction.—Eight short lines in the north-western districts of Ciscaucasia were surveyed or under construction in 1914. Their object was to serve agricultural interests in this area. A line along the valley of the Terek to serve Mozdok and shorten the main line to Baku was also being built.

In Transcaucasia the principal lines under construction were extensions into Turkish Armenia, at the time of the invasion of that province by the Russians in 1915-16. A line from Tiflis to Telav, 116 miles long, under construction by an independent company, financed by Georgian landowners, was almost finished in 1914. It was intended to tap a wine-growing district.

Projected Railways.—Extensive additions to the Caucasian railway systems had been planned and in some cases surveyed, and money had been raised for their construction when war broke out.

The most important was the Black Sea coast line

from Tuapse to Novo-Senaki on the Transcaucasian Railway, a distance of 267 miles, which had been undertaken by an independent company, the Kuban-Black Sea Railway Company.

A company called the South Caucasian Railway Company had received a concession for a line from Borzhom to Kars with a branch to Olti, a coal-mining centre, and a line had also been projected from Batum to Kars along the valley of the Chorokh.

The Armavir-Tuapse Railway Company had two extensions in view: one from Armavir to Blagodarnoe (299 miles) to serve Stavropol Province, the other from Kurgannoi to Ust Labinskaya, a narrow-gauge line.

A concession had been granted for a line from Evlakh, a station on the Transcaucasian Railway between Elisavetopol and Baku, to Shusha, 59 miles to the south.

A Caspian coast line from the point south-west of Baku where the main Transcaucasian line turns inland, *via* Salyani and Lenkoran, to Astara, on the Persian frontier, had been planned; and a syndicate for its construction was being formed in 1914.

The question of a railway between Vladikavkaz and Tiflis has been discussed for many years, but the schemes for its construction have all proved abortive on account of the difficulties and high cost of crossing the Caucasus range.

When war broke out railway-building, except on the routes into Turkish Armenia, which were exclusively of military importance, came to a standstill, and all plans for the future fell into abeyance. That construction should begin again is very necessary, for the existing lines are quite inadequate to the economic requirements of the country.

(d) Posts, Telegraphs, and Telephones

The postal service was organized on the European model, and there were the usual facilities for sending money by post. The practice of sending parcels, cash

on delivery, was in existence. Parcels in transit for Persia went duty free.

All the principal towns have telegraphic communication with other parts of the Caucasus and with Russia. The lines follow the railway routes, and towns not on these are connected with the main telegraph system by branch lines.

Telephonic communication between Tiflis and Baku was established in 1911, and it was intended, should the innovation prove a financial success, to extend the system to other large towns.

(2) EXTERNAL

(a) *Ports and Roadsteads*

(i) *On the Black Sea.*

In *Anapa Roads* are two anchorages, the outer exposed from north-west to south-south-west, the inner (for small craft) sheltered from south-west winds. A pier, 175 yds. long, runs out on the north of the town. The Government proposed to carry out harbour works there. The port does a small trade in grain, fur, and wax.

Batum.—The bay of Batum is about a mile and a half wide from east to west and half a mile deep from north to south. From the southern shore, in a north-north-westerly direction, extends a mole 275 yds. long, from the head of which another mole, known as the Petroleum Mole, carrying rails and petroleum pipe lines, runs south-west for 440 yds. The harbour thus formed, known as the Western or Petroleum Harbour, has a dredged depth of 24–30 ft., with berths for 20 steamers. A breakwater running north-east from the first mole for 275 yds. forms the Eastern or Coasting Trade Harbour, which is only 7–17 ft. deep, and needs constant dredging. There is also a mole, 200 yds. long and 60 yds. wide, extending towards the north-north-east from the north-western

extremity of Burun Tabia, which is the western point of the bay.

The harbours, though approachable in all weathers, are exposed to the violence of south-westerly gales; and in 1910 the British Consul stated that complaints were general with regard to their unsafe condition. In 1911, on the subsidence of one of the moles, a scheme was framed which comprised considerable extensions and improvements. The funds provided by the Congress of Harbour Authorities were at first insufficient, but in 1913 the sum of £750,000 was provisionally assigned. The preliminary work and surveys were completed by June of the following year, but on the outbreak of war the undertaking had to be abandoned.

The dangers incurred by shipping in bad weather and the inadequacy of the port to deal with increased traffic resulting from the manganese trade have for years impeded the commercial development of Batum. From 1878 to 1886, however, it enjoyed eight years of exceptional prosperity as a 'free port'. Even after the withdrawal of this privilege in 1886, the petroleum export maintained trade at a high level until the labour disturbances of 1903-5, from the disastrous effects of which the port has not yet recovered. The total value of its trade in 1913 was £5,134,732, of which £4,552,200 represented exports and £582,532 imports. Coasting trade, carried on exclusively by Russian ships, was very prosperous in that year.

Gagri is an open roadstead, providing anchorage for small vessels in 5-6 fathoms. The Government had in contemplation a scheme to build a harbour of refuge there, for which a sum of £211,000 was assigned in 1913.

Gelendjik Bay, which is $2\frac{1}{2}$ miles long and $1\frac{1}{2}$ miles deep, is sheltered from the violent north-east winds. Light vessels find good anchorage in 12 ft. of water.

The open roadstead at *Gudaut* is used by coasters only.

Novorossiisk harbour has been artificially formed by the construction of two moles, each half a mile long. On

the shore front there are 7 piers with depths varying from 19 to 29 ft. at their outer ends. Five of these piers are owned by the Vladikavkaz Railway Company, one by the Russian Steam Navigation and Trading Company, and one by the Russian Standard Oil Company, and all are connected by double lines of rail with the terminus railway station. There is also on the south-west of the harbour a mole, used by coasters, with a depth of 23 ft. alongside. Altogether, there are berths for about 22 steamers.

In autumn and winter anchorage at the head of the bay is rendered very unsafe by the *bora*, a violent north-easterly wind which then prevails; vessels are sometimes unable even to enter.

The harbour is lit by electric light and there are ample loading facilities. The Vladikavkaz Railway storehouses can take 70,000 tons of grain. An iron foundry close to the harbour makes marine boilers and executes repairs.

Novorossiisk has a considerable export trade in grain and mineral oil, amounting to about £5,000,000 a year in value. The imports are inconsiderable, and consist chiefly of machinery, hardware, and coal.

Poti harbour affords safe protection to shipping, but is practically unapproachable in bad weather. An outer and inner basin are formed by two moles built of concrete blocks. Another mole in the middle of the outer basin carries two lines of rails and several large sheds. In the inner basin there are berths for eight or ten steamers and an elevator for loading manganese. The length of quayage is 1,500 yds.

In 1913 the value of the exports, of which manganese was by far the most important, was £835,972, whilst the value of the imports for the same year was only £7,350.

Sochi is used by sailing vessels, which anchor off Sochi town in 16 fathoms. Steam vessels are able to anchor closer inshore. Sochi was included in the Government scheme for the construction of ports of refuge on this coast.

Sukhum Kale in Sukhum Bay affords indifferent anchorage in 6–8 fathoms. There is a quay, 56 yds. long, built on piles. A sum of £370,000 was assigned in 1913 for improvements to this port.

Tuapse roadstead, open to the south and south-west, is protected from north-west winds, and affords good anchorage in 6 fathoms. Two moles, half a mile apart, converge to form the old harbour, the depth inside the eastern mole being 23 ft. When the railway was brought to Tuapse, it was realized that the existing harbour accommodation would be inadequate. A concession to build a safe harbour was granted to a French firm in 1909, but, as they failed to fulfil their agreement, the State took the work over in 1913, and it was nearing completion in the autumn of 1914.

(ii) *On the Sea of Azov.*

The Caucasian ports on the Sea of Azov are as yet undeveloped, and relatively unimportant.

Akhtar Bay is so shallow that steamers have to anchor 9 miles from the coast, steam barges bringing out the cargoes.

Temryuk stands on a peninsula dividing two shallow lakes. Its harbour is connected with the sea by a channel 12 ft. deep, navigable by light-draught steamers. There are two piers, but vessels anchor out in the bay. A considerable trade is done in grain and fish.

Yeisk stands at the base of a sandy spit, on the east of which an artificial harbour has been dredged to a depth of 12 ft., with an inner basin 350 yds. long. Projects have been considered for the construction of a deep water port there, to be connected with Ekaterinodar by a branch line.

(iii) *On the Caspian Sea.*

Baku stands on a crescent-shaped bay, 7 miles wide from point to point, protected on the south by Cape

Bailov, and on the east by the Kargin Islands, which lie at the entrance to the bay, 7 miles out at sea. A line of quays extends 4 miles, and there are 14 piers, owned by various shipping companies, each company having its own wharf, warehouses, and offices. In 1914 the State assigned £100,000 for the building of other wharves, although there was already ample accommodation for the steamers engaged in oil transport and in the Transcaspiian trade. At Cape Bailov there is a capacious dock.

Derbent (Derbend), 154 miles to the north-west of Baku, is an open roadstead, affording no protection from the north and south-east winds, which blow with great violence at certain seasons. There are no harbour facilities, but various shipping lines visit the port regularly. There is a considerable local trade in fish.

Lenkoran, on a shallow bay, offers only exposed and indifferent anchorage. Large ships lie 3 miles out to sea. There is a considerable trade in boxwood.

Petrovsk, 81 miles north-west of Derbent, has a fair harbour, formed by a curved stone mole, 500 yds. long, on the south. There is a wooden pier on the north, and both mole and pier are connected by lines of rails with the railway station. There are berths for about 10 steamers. The quays and wharves are lit with electric light. The port is closed by ice in January only, and in the winter months, when the Volga is frozen, Petrovsk does a considerable transit trade between Russia in Europe on the one side and Persia and Transcaspiia on the other. It also exports oil from Grozni to the Volga. All the Caspiian Sea steamship companies call at Petrovsk regularly.

(b) *Shipping Lines*

(i) *Russian*.—The Russian Steam Navigation and Trading Co. had almost a monopoly of the Black Sea shipping services, and, under a contract due to expire in 1928, received an annual subsidy of £98,000 from the State. It had piers at the ports of Batum and

Novorossiisk. Its vessels called four times a week at Batum, three times a week at Poti, Gagri, Sukhum Kale, Sochi, Tuapse, and Anapa Roads, and once a week at Gelendjik Bay. In 1914 it possessed 70 steamers with a total tonnage of 142,264.

The Russian Volunteer Fleet Association called at various ports on the Black Sea and the Sea of Azov; in 1914 it had 31 steamers with a total tonnage of 116,364.

The Caucasus and Mercury Co. had 39 steamers, with a total tonnage of 16,504 on the Caspian Sea, and received a grant of £30,350 per annum for its Caspian and Volga services. In 1913 the company demanded an increase to £67,000, which was refused. It had a regular service between Baku, Astrakhan, Krasnovodsk, and smaller Caspian ports.

Other Russian shipowners serving the ports of the Caucasus in 1914 were, on the Black Sea, L. L. Andreis with 12 steamers, Ehrtmann & Geelmuyden with 2 steamers, both of Novorossiisk, and P. Spoliansky of Batum with 2 steamers; on the Caspian, the Eastern Trading Co. with 34 steamers, the Mazut Co. with 14 steamers, the Nadejda Co. (affiliated to the Caucasus and Mercury Co.), Nobel Brothers, and Kachtcheef Brothers.

(ii) *Foreign*.—The Wilson Line, the Oesterreichischer Lloyd, and the Navigazione Generale Italiana had regular services to Batum, Novorossiisk, and Poti; the Compagnie de Navigation Paquet, the Messageries Maritimes, and the Deutsche Levante Linie regular services to Batum and Novorossiisk, and boats calling occasionally at Poti; the Cunard and Moss Companies regular services to Batum only. Vessels of the Ellerman Line called occasionally at Batum, and those of the Danube Steam Navigation Co. (Rumanian) at Batum and Novorossiisk.

A good deal of 'tramp' tonnage was attracted to the Black Sea, especially in the autumn, when grain shipment from Novorossiisk was brisk. The vessels were of all nationalities, but British shipping easily held

first place, followed, up to the outbreak of the Balkan War, by vessels under the Greek flag. Only Russian-owned vessels trade on the Caspian Sea.

Shipping facilities both on the Black and Caspian Seas were equal to all demands; on the former the majority of the vessels from abroad arrived in ballast, as imports nowhere balanced exports.

Particulars of shipping at the principal ports in 1909 and 1913 are given in Table I of the Appendix (p. 92).

(c) Telegraphic and Wireless Communications

The Indo-European Telegraph Co. has a line running from Julfa by Erivan, Tiflis, Zugdidi, Sukhum Kale, Tuapse, Ekaterinodar, and Temryuk to Chushka Point, whence two submarine cables belonging to the company cross the Kerch Straits to Yenikale. Land telegraph lines connect Batum with Constantinople *via* Trebizond. A submarine cable connects Baku with Krasnovodsk in Transcaspia.

Batum possesses a wireless telegraph station, installed in 1911, in communication with Sevastopol. A wireless station with a range of 267 miles connects Petrovsk with Fort Alexandrovsk in Transcaspia, and another of the same power was opened at Baku in 1914. Funds were assigned in that year for erecting stations at Novorossiisk and Poti.

(B) INDUSTRY

(1) LABOUR

(a) Labour Supply ; Immigration and Emigration

Agriculture forms the occupation of the majority of the inhabitants of the Caucasus, though in many cases it is pursued in combination with other activities. The numerous peoples of which the population consists (see above, pp. 8-12) naturally show very various capacities for labour and prejudices with regard to it. The people of Caucasian or Georgian stock are cultivators of the land and keepers of flocks and herds, with little taste

for industrial work ; many of them, especially those of the mountainous districts, are very backward (as are also the Kurds and Ossetes), but the Lesghians and Gruzians are reliable and hard-working, and constitute the best native labour supply. The Armenians, on the other hand, find their most congenial employment in trade and usury, though a good many of them are employed on the oil-fields ; the Russian colonists make good agriculturists, but are often idle and intemperate ; while the Tatars, who in general are farmers and breeders of sheep and cattle, are also the predominant element on the Baku oil-fields.

The native labour supply, however, is insufficient for the country's requirements on the oil-fields and elsewhere, and there has been a considerable *immigration* for some years past, the chief sources being as follows :

(i) *Russian*. — When Transcaucasia came under Russian rule in 1878, the State replaced the many Abkhasians and Circassians who left the country by considerable numbers of Russian colonists. Russian settlers have been planted by the State on the reclaimed lands of the Mughan and Mil steppes. There is a seasonal movement of some 300,000 labourers from Central Russia into Ciscaucasia for the harvest. *Artels*, or combines of Russian skilled workers, numbering from 10 to 50 persons, move about the country undertaking various sorts of contract work, and earn high wages.

(ii) *Armenian*. — Except in the two or three years following the establishment of the Young Turk Government, there has been a steady stream of immigration from Turkish Armenia to the Caucasus. This immigration increased during the persecution of the Armenians in 1915, but the fate of the refugees since the Turco-German occupation of the Caucasus is uncertain. Echmiadzin, in the Government of Erivan, the residence of the Armenian Patriarch, was regarded as the national capital of the Armenians.

(iii) *Turkish* labour is imported for the tea plantations on the Black Sea coast, and for the copper mines in the Batum district.

(iv) *Persians* go to the Baku oil-fields as tub-cleaners, &c.

(v) Induced by the demand for labour on railway construction and other public works, a considerable number of *Italians* immigrated into Transcaucasia about the middle of last century, and remained there in scattered communities. There is also a small seasonal immigration of Italians, chiefly masons, road-makers, and sculptors, which increases whenever new public works are taken in hand.

(vi) A few *Greeks* enter Caucasia, mainly to work in the copper mines.

(vii) There are a few villages inhabited by *German* immigrants of long standing, representing, as in Hungary, early German efforts at colonization.

There has been no *emigration* worth mention since the beginning of the present century, except that in 1910 a number of Turkish Armenians returned to their native country, hoping that the Young Turk revolution would secure better political conditions for their race.

(b) *Labour Conditions*

Since the revolutionary disturbances at Baku in 1902-5 (see above, p. 29) the conditions of labour in the Caucasus have steadily improved, in spite of the difficulties placed in the way of labour organization by the diversity of nationalities involved. There have been frequent strikes. In 1913 manganese miners, case and can factory hands, copper miners at Dzansul, dock labourers at Poti, and the employees of the Russian Steam Navigation and Trading Company struck for shorter hours, increased pay, and better housing. These movements met with varying degrees of success; an average advance of 30 per cent. in the rate of wages was effected and an eight-hours day was generally conceded. In May 1914 there was a general strike on the Baku fields, the demands including recognition of workmen's committees, better conditions both in the workshops and in the workers'

own homes, and a rise of from 10 per cent. to 50 per cent. in the rates of pay. A promise of improved housing had been obtained when war broke out, and the men returned to work.

In the matter of wages, the demand at Baku was for a minimum of £3 10s. a month ; in 1908 an ordinary labourer on the oil-fields had earned only from 32s. to 40s. a month. In other industries ordinary labourers received from 2s. 6d. to 5s. a day, artisans from 5s. to 7s. 6d., and miners from 5s. to 8s. 4d. Italian masons were paid from 3s. 4d. to 6s. 8d. a day. Agricultural labourers in 1913 were receiving from about 1s. 7d. to about 2s. 2d. a day, wages being highest in Kutais and lowest in Terek. Female labour, which is much used both in agriculture and in industry, is very poorly paid.

Since 1912 accident and sickness insurance has been compulsory for large industrial concerns. Medical attendance, maintenance during illness, and pensions for totally disabled workmen and for the dependants of workmen accidentally killed in their employers' service, have to be provided by the employers.

(2) AGRICULTURE

(a) *Products of Commercial Value*

Vegetable Products.—*Cereals* grow well in the soil of Ciscaucasia, which is a continuation of the 'black earth' of southern Russia. The area planted with *wheat* in 1914 throughout the country was 12,700,000 acres, yielding nearly 3,000,000 tons of grain ; nearly 5,000,000 acres were in Kuban and over 4,000,000 in Stavropol. The area under *barley* in the two divisions of Caucasia in 1914 was about 5,500,000 acres (yielding 1,600,000 tons), and of these more than 4,000,000 were in Ciscaucasia—2,000,000 in Kuban, 1,600,000 in Stavropol, and the rest in Terek. Between 1911 and 1915 Ciscaucasia produced on an average one-third of the total output of winter wheat in the whole Russian Empire and about 15 per cent. of the entire yield of

wheat and barley. Considerable quantities of both wheat and barley are also grown in the eastern and central parts of Transcaucasia, the area under wheat in 1914 being 475,000 acres in Baku, 692,000 in Elisavetopol, and 680,000 in Tiflis, and that under barley, which thrives up to an elevation of 8,000 ft., being 248,000 acres, 329,000 acres, and 318,000 acres respectively in the same three governments.

Maize is the cereal most widely cultivated in north-western Transcaucasia, where it forms the principal food of the population, and whence it is also exported to Europe and Turkey. In Kutais the crop covered 466,000 acres in 1914, and in the little coastal district of Sukhum more than 100,000 acres. The acreage under maize in the whole country was 1,440,000, of which 670,000 acres were in Transcaucasia. Of the 770,000 acres sown in Ciscaucasia, 561,000 were in Terek. The total production of maize in 1914 amounted to 481,000 tons. *Millet* is almost entirely confined to Ciscaucasia, which in 1914, out of a total of 951,000 acres, yielding 355,000 tons, could claim 895,000 acres, more than half of them in Terek and most of the remainder in Stavropol. *Oats* are even more exclusively a product of the northern provinces, for in 1914, of a total of 1,056,000 acres, 512,000 were in Kuban, 301,000 in Stavropol, and 204,000 in Terek. The total yield was 441,000 tons. *Rye* is the least popular of the cereals, there being only 407,000 acres under this crop in the north, of which 246,000 were in Kuban, and 133,000 in the south, of which 75,000 were in Elisavetopol. The total yield was 137,000 tons. The growing of *rice* is decreasing; the yield in 1914 was 28,000 tons, and the area under cultivation 78,000 acres.

Cotton, first grown in the Government of Kutais in 1860, had come before the war to be cultivated over considerable areas in Elisavetopol and Erivan, and to a smaller extent in Baku, Tiflis, and Kutais, while a beginning had been made in Sukhum and Kars. Indeed the cotton crop, which was superseding rice, was looked on as a promising source of future prosperity, and

its cultivation was encouraged by the Government. American cotton gins, irrigation pumping plant, traction engines, and ploughs had been introduced, and cleaning mills of modern pattern built, and it was hoped that on the completion of the irrigation schemes, by which the surplus waters of the Kura and Aras (Araxes) were to be utilized (see pp. 59–60), it would be possible greatly to enlarge the area under cultivation. That area, which thirty years ago was only about 30,000 acres, had already increased by 1910 to 150,000 acres, and by 1912 to 223,000 acres. With regard to the area sown in 1914, there is a wide discrepancy between the Russian official return (186,000 acres) and the figure (337,500 acres) supplied by the British Consul at Batum. The Consul states, however, that owing to a decreased demand and consequent fall in prices, caused by the closing of the Polish mills and the shortage of labour in the manufacturing centres of Russia, there was a tendency among growers to abandon cotton for cereals; and it is possible that his figure is based on an estimate of the probable acreage before this tendency had become fully operative, while the Russian figure represents the area actually cultivated. Of the 186,000 acres of the Russian return, half lay in the Government of Elisavetopol, about a third in that of Erivan, and some 20,000 acres in that of Baku; while of the yield, which was a little under 60,000 tons, 35,500 tons came from Elisavetopol and 18,000 tons from Erivan. This yield, however, owing to heavy rains and cold weather, was below the average.

Flax was grown on 168,000 acres in Ciscaucasia and 18,000 acres in Transcaucasia in 1914, the total yield being 38,000 tons, which was double the yield of 1910. The cultivation of *hemp* is on a very much smaller, though an equally increasing, scale, and is almost entirely confined to the north. There is, however, a plant closely resembling hemp, called *kanap*, which is easily grown and might be used for the same purposes.

Fruit.—Practically all the districts in Transcaucasia

are suitable for the cultivation of European and sub-tropical fruits. Oranges and lemons thrive particularly well, and peaches, apricots, plums, apples, pears, and olives are also grown. The plums of Sochi and the oranges of Chavka have a special reputation, and in the Batum district strawberries attain great perfection. Sukhum district and the neighbourhood of Artvin grow the best olives. Melons are intensively cultivated. Fruit-growing is being developed on scientific principles by the peasants and small landowners of Kuban.

In 1913 the total area devoted to *hay* was 1,895,000 acres, of which 373,000 were in Terek, 278,000 in Chernomoria, and 227,000 in Baku.

The collection of *liquorice* root, which grows wild, is an industry of some significance, and before the war the shipments from Batum, chiefly for America, were increasingly large. The manufacture of liquorice paste, however, was much affected by the high price of crude oil, used as fuel by the factories, and there has been no export of it since 1914.

An attempt has been made to grow beet-root for *sugar* in Kuban, but the production was very small; 8,785 acres were under cultivation in 1914, of which 7,380 belonged to a sugar factory at Gulevichi.

The *sunflower* is cultivated for the sake of the oil to be obtained from the seeds, which is used as a substitute for linseed oil. The seeds are crushed in local mills and the stalks are used for the manufacture of potash. The crop covers a greater area than any other except the cereals, but is practically confined to Kuban. In 1914 there were 698,000 acres under cultivation, of which 681,500 acres were in Kuban, and the total output was 298,000 tons, of which the Kuban fields gave 292,000 tons, the rest being grown in the neighbouring Province of Stavropol. In that year the production of Ciscaucasia represented seven-eightieths of the total production of sunflower oil in the Russian Empire. Its share in the total for 1915, however, was less than one-third, a decrease probably due to the necessity of growing more cereals than usual to meet

the falling off of supplies from Russia since the outbreak of war. Up to 1914 the export of oil was considerable.

There were 2,020 acres of land under *tea* along the Black Sea coast in the Province of Batum and 75 acres in the Government of Kutais in 1914. Of this area, 1,080 acres were in the Imperial Domains, 489 acres were the property of the firm of Popoff Brothers, and the remaining plantations belonged to thirteen villages near Chavka. The revenue from the sale of tea was in 1909 about £26 per acre on the Imperial plantations. As a result of the success achieved on the Imperial Domains, tea-growing was beginning to be taken up as a local industry, and the National Government granted a sum of about £1,500 towards the construction of a factory at Batum, under the management of the Batum Agricultural Society, where locally-grown tea could be cured. Another factory was also to be erected at Ozurgeti, under the management of an instructor from the Imperial plantation at Chavka. The cultivation of tea was proceeding successfully at Ozurgeti in 1914. In that year the plantations near Batum produced about 160 tons of leaf.

Tobacco is grown in all the provinces of Caucasia except Stavropol, where its cultivation has been abandoned since 1911; but the most important centres are in Kuban, Sukhum, and Chernomoria. The Kuban plantations apparently give the heaviest crops,¹ but the tobacco of the best quality grows on the Black Sea coast, especially near Sukhum and Sochi. Of the total Russian output of high quality Turkish tobacco in 1915, 90 per cent. came from Caucasia, and of this 57·6 per cent. originated from Kuban, 21·2 per cent. from Sukhum, and 11·2 per cent. from other districts. In 1914, out of a total cultivated area of 80,500 acres, producing 32,600 tons of tobacco, 29,000 acres, pro-

¹ Judging by the returns for 1914; but the figures vary in different reports, and moreover the yield fluctuates considerably according to the weather, so that the figures for one season are not a safe basis for generalization.

ducing 15,000 tons, were in Kuban, nearly 33,000 acres, producing 9,700 tons, in Sukhum, and 10,000 acres, yielding 3,600 tons, in Chernomoria. In Transcaucasia tobacco is most cultivated in Tiflis, Batum, and Kutais, but the acreage and output of Zakatali, though actually small, is not inconsiderable in relation to the size of the district.

Wine is made throughout the country, but though the produce of Ciscaucasia is not inconsiderable in quantity, the grapes are comparatively poor in quality and their juice is thin and acrid. So excellent, on the other hand, are those of Transcaucasia, and in such abundance do they grow, that until the appearance of oïdium, which of late years has necessitated the application of some 4,000 tons of sulphate of copper per annum, thus greatly increasing the cost of production, the peasants were able, by their primitive methods, to make sufficient wine at a cheap rate for their own very liberal consumption. With the introduction of scientific treatment of the vines and of French methods of manufacture the industry should prove lucrative. In a few places modern establishments already existed in 1914, but at present too many kinds of grapes are grown and the plantations are too close together. The district in which the vineyards are most extensive is that of Tiflis; but whereas in 1914 in that Government 81,000 acres yielded only 73,000 tons of grapes, Kutais produced 89,000 tons from 50,000 acres. The localities most celebrated for their wines, however, lie in the Gelendjik district and also in the country round Shemakha and Geokchai, where 22,500 tons of grapes were produced in 1913; in the district between the rivers Kura and Alazan, the ancient Kakhetia, on the borders of Zakatali and Elisavetopol; and at Echmiadzin in the Government of Erivan. In 1914 the total area covered by the vineyards of Caucasia was a little over 300,000 acres, and the yield of grapes 350,000 tons.

Other crops grown in Caucasia, with their acreage and production in 1914, were the following: potatoes, 234,000 acres. 586,500 tons; spelt, 24,000 acres,

7,000 tons; buckwheat, 21,000 acres, 7,000 tons; lentils, beans, and haricots, 20,000 acres, 5,300 tons; peas, 9,000 acres, 3,000 tons. Ramie fibre and attar of roses are produced on the Black Sea coast.

Live-stock and Animal Products.—Owing to the tendency to convert pasture into arable land, there has been a great decrease in the numbers of live-stock raised in Caucasia of late years. To this rule, however, the Jevat and Geokchai districts in Baku Government present an exception; for cattle and horse raising has there been developed into an important industry, the profit obtained in the former region in 1914 being estimated at £70,000. In 1913 the total area devoted to pasturage, which is situated in the steppes and on the mountain slopes up to an elevation of 9,000 ft., was 3,700,000 acres, and the animals in the country comprised 6,327,000 head of cattle, 2,135,000 horses, 13,336,000 sheep and goats, and 1,215,000 pigs. The largest numbers of animals are found in Kuban and Terek; there were in 1912 nearly 4,500,000 of all kinds in the former province and nearly 3,500,000 in the latter.

Buffaloes and a small breed of *oxen* are bred in large numbers; they are used as draught animals, and in some districts as beasts of burden and for ploughing. The best breed of buffaloes is reared in the Governments of Elisavetopol and Kutais.

Horses are raised in other southern districts of Baku besides those already named, and on the Karabagh steppe, which extends from Baku into Elisavetopol; in the valley of the Terek and the Kabarda districts near Vladikavkaz; and in the Provinces of Kuban and Stavropol. A breed of mountain ponies is reared in Kutais. There are numerous private studs.

Camels, which are bred in the south-eastern provinces, are used chiefly as pack animals in the transport of goods to and from Persia, but occasionally also for draught purposes.

Great numbers of *sheep* and *goats* are bred on the steppes and plateaux and in the hill districts. The

wool production was 14,946 tons in 1908, 13,339 tons in 1909, and 17,356 tons, of which 16,473 tons were fine wool and 883 tons coarse, in 1913. The nomad Kurds, the Tatars, the Ossetes, the Svanetians, the Kabards, and the Abkhasians live principally by their flocks and herds, which they raise by primitive methods. Part of the wool crop is sold in the Tatar camps at shearing time to local carpet-weavers; part is exported.

Honey and wax are obtained throughout the Caucasus. In 1912 there were 26,000 apiaries, containing nearly 600,000 hives, and the production was 2,500 tons of honey and 300 tons of wax, most of which was consumed locally.

Silk.—Mulberry-trees are grown on the lower slopes of the Transcaucasian mountains, and the silkworm industry, after a period of depression due to the spread of disease amongst the silkworms, has developed greatly of late years, especially in the Governments of Tiflis, Erivan, Elisavetopol, and Kutais. In the Baku Government, where it was once widespread, the industry is only continued to any considerable extent in the district of Geokchai. Much of the output, which in 1914 amounted to over 5,000 tons, is normally consumed in local silk manufactures. Silkworm eggs were imported, principally from Turkey and Italy, and were strictly examined by the Imperial Agricultural Society at Tiflis. The failure of the Turkish supply after 1914 adversely affected subsequent cocoon crops.

(b) *Methods of Cultivation*

Ciscaucasia is far in advance of Transcaucasia in respect of agricultural methods, a fact due in part to the more enterprising character of the Cossack population and in part to the less isolated geographical position of the northern provinces. In both divisions of the country, however, there has in recent years been a notable advance in agricultural science, evidenced by the rapid development of co-operation. Whereas in 1909 there were 100 agricultural associations in the

Caucasus, in 1913 there were 803. Agricultural methods were taught in some of the industrial schools. There were experimental botanical gardens, subsidized by the State, at Tiflis and Batum, and a sericultural station. The grants made by the Caucasian Board of Agriculture for the promotion of rural industries in 1913 amounted to £100,000, an advance of 50 per cent. on the sum granted in the previous year. Of this total, £61,000 was allocated to research, £2,000 to improvement of live-stock, and £5,000 to grants in aid to agricultural societies.

In 1913 a commission of agriculturists appointed by the Viceroy of the Caucasus recommended that all educational and experimental institutions should be brought under the Board of Agriculture, and that a permanent commission should be formed to control and initiate such institutions, to organize the supply of information, and to compile statistics.

Partly on account of labour difficulties (see p. 50) there was an increasing demand for agricultural machinery, but better methods of cultivation were simultaneously being introduced.

Extensive *irrigation* schemes had been carried out and others were in contemplation. At Chamlik, a canal from the Laba, the largest tributary of the Kuban, irrigates several thousand acres of steppe land. There is an irrigation canal near Tiflis. In 1906, 62,100 acres of land in the Mughan steppe were reclaimed, at a cost to the State of £31,000; 14 villages were planted, and land which had been practically worthless yielded about £4 an acre. In 1913 the Irrigation Board set up a modulation section to test the rise and fall of water for irrigation purposes in the Karayaz experimental fields and the Mughan steppe. The irrigation of the Mughan steppe was completed and the adjoining Mil steppe was made fertile by means of the Romanov Irrigation Canal, which was opened in 1914; in this year a large barrage was under construction at Saalti, and was to have been completed by 1915. A total of 190,000 acres on the Mughan had been reclaimed,

and 20,000 settlers planted. These improvements had cost £425,000 up to 1914. The water for irrigation was to be obtained chiefly by controlling the rivers Aras and Kura, which in their lower reaches overflow their banks and form permanent marshes. The question of the regulation of all the principal rivers of the country was being officially studied.

(c) *Forestry*

The total area of forest land in Caucasia cannot be stated with certainty. The extent of the forests under the control of the Ministry of Forests was 12,218,000 acres, or about 11 per cent. of the total area of the country and rather more than half of its cultivated area. Kasperowicz¹ puts the total at 16,000,000 acres, and specifies as being favourably situated for commercial exploitation, 1,372,000 acres in Tiflis and Zakatali, 1,008,000 in Elisavetopol, 863,000 in Chernomoria, 807,000 in Kuban, 705,000 in Terek, 647,000 in Batum, 453,000 in Kutais, and 417,000 in Sukhum. The largest tracts of virgin forest are to be found on the mountain slopes of the Black Sea coast; there is a large forest north of Lake Gokcha, and another in the east of Elisavetopol Government; the middle course of the Kura is wooded throughout, and there are considerable forests in the Armenian Highlands. The best exploited forests in Transcaucasia are those in the Ateni valley near Gori, in the Adzhamer valley near Rion, and at Borzhom—all to the west of Tiflis or the east of Kutais.

The trees include walnut, box, beech, oak, birch, Caucasus palm, wych-elm, pine, alder, &c., of which the first five are the most valuable. The walnut and box tree grow extensively in Transcaucasia; their timber formed a valuable article of export, but the quantities exported are declining, since the remaining walnut forests are remote from railways, and the box-wood is being held back to await more favourable

¹ Raffalovich, *Russia : its Trade and Commerce*, p. 94.

prices. Special varieties of conifers, birch, oak, and palm grow in the Caucasus. The Caucasus palm or *samshita* is not plentiful, but is greatly valued. The commonest tree is the beech, which occupies 25 per cent. of the total forest area ; the oak occupies 16·7 per cent. and the pine 8·1 per cent. Plantations of bamboo at Chavka and Sukhum have been very successful, the cane being used for industrial purposes.

The Italian firm of Sbrajavacca was in 1914 exploiting the pine-forests of Svanetia and Ratce, the timber being floated down the river Rion. The firm has saw-mills at Socilava and Poti.

The Russian State levied on all timber a royalty varying according to the kind of wood, &c. The State also fixed the amount of timber to be felled in each area, which was then sold to the highest bidder. The total amount of timber which might be cut in the Caucasus was fixed in 1913 at nearly 220,000,000 cubic feet, of which only a little more than a quarter was actually delivered.

(d) *Land Tenure*

The Caucasus as a whole has no fixed system of land tenure, nor are any of the characteristic Russian features of land-holding found there. The various kinds of landowner may be divided into six classes : the old nobility of Georgia ; Tatar and Armenian peasant holders ; nomad pastoral tribes, who occupy large areas of steppe land, especially in Stavropol Province ; Russian settlers, placed on land vacated after the conquest ; the Russian State, which owned large areas, mainly forest ; and the Imperial family, which had acquired valuable appanages in the Caucasus.

No figures are available to show the proportions in which the land is held by these various owners ; and, as a large part of the total productive area is occupied by nomads, no exact statistics would be possible. Moreover, recent events have to a great extent obliterated the old divisions, and new claims to ownership of much valuable land will have to be settled in the course of time.

(3) FISHERIES

The fisheries off the Caucasian shore of the Caspian Sea are an extremely important source of revenue, and employ large numbers of men, though of late years the more valuable kinds of fish have decreased greatly both in numbers and in size. The catch of *puzanka*, a small variety of herring, off the coasts of Daghestan and Terek averages about 44,000 tons a year, while in 1910 it reached 80,000 tons, with a value of £1,000,000. Owing, however, to the deficiency of means of communication between the Terek coast and the commercial centres of the country the industry is far less profitable than it should be to those engaged in it.

The *sturgeon* fishing in the River Kura, which has its centre at Salyani, is the richest in the world. The bank fishery at the mouth of the river produces from 160 to 240 tons of *caviare*, worth from £75,000 to £150,000 a year, while the total production of the river averages 320 tons. There is ample cold storage accommodation.

The Caspian Sea fisheries are divided into plots, which are let by auction by the Government. In 1910 two large firms obtained two-thirds of these, and a combine of all the Caspian fisheries was expected to follow.

The Kuban Cossack fisheries in the Sea of Azov give some 350 to 400 tons a year, with an average value of over £50,000. The output from Chernomoria in 1911, the only year for which figures are available, was 880 tons of fish, of which 260 tons were herrings and 170 tons were flat fish ; the value was £15,000.

All the streams of the Caucasus abound in fish ; trout, salmon, and various coarser varieties are caught in large quantities. The total number of fish caught in Caucasian waters in 1911 was, in round figures, 2,400,000 salmon and sturgeon, and 232,000,000 other fish. The total output of *caviare* in the same year was 418 tons.

(4) MINERALS

The mineral resources of Caucasia have never yet been systematically surveyed, but they are known to be both varied and extensive. As at present worked, and excepting mineral oils (see below, p. 68), which as a source of wealth have hitherto stood alone, the most valuable products are manganese and copper.

Baryta is produced in Kutais by six enterprises; the output in 1910 amounted to 1,750 metric tons, or five-sixths of Russia's total output.

Coal is mined chiefly at Tkvibuli, in Kutais, where the mines are served by a branch railway. This coal yields a dense strong coke useful for metallurgy. A very little coal is also produced in Kuban, and lignite of poor quality is found and consumed locally in the Migri valley, at Manglis and Borchka. Unexploited deposits exist on the Black Sea coast, where the Tkvarcheli forest is believed to cover 54,000 acres of coal of excellent quality. A large deposit occurs near Tiflis, in the valley of the River Oltinsk, and coal has recently been found at Akmetovskoi. The production in recent years shows a steady increase, the total output having been 45,700 metric tons in 1910, 51,000 in 1911, 69,000 in 1912, and 75,000 in 1913.

Copper.—The rich copper deposits have hitherto been only partially worked, but three distinct areas are now exploited by foreign capital:

(i) The Kedabek mines, in Elisavetopol (north-east of Lake Gokcha), are worked by the American firm of Siemens Brothers. There are three mines, at Kedabek, Kalakent, and Karabulakh, which are connected by a metre-gauge railway. The ore contains from 2 to 20 per cent. of copper, and the production of copper in 1913 was 1,272 metric tons. Benzene brought from Baku by pipe line is used for smelting, whereas the companies referred to below use electricity. Siemens Brothers had begun before the war to exploit copper at Kvartshana in the Province of

Batum, and were about to erect blast furnace smelting works there.

(ii) The Allahverdi, Aktala, and Shambru mines, in the Lialvar Mountains (Tiflis), are worked by the French *Compagnie Métallurgique et Industrielle du Caucase*. At Allahverdi, the most productive mine, the ore (copper sulphide) contains 7.18 to 18.56 per cent. of copper, and the output of copper in 1913 was 4,760 metric tons.

(iii) The Dzansul, Chiakathevi, and Erga mines, on the borders of the Provinces of Batum and Kutais, are exploited by the *Caucasus Copper Co.*, a British company formed in 1900. Heavy initial outlay and climatic difficulties necessitated a large capitalization, but in 1913, when some 12,000 workmen were employed, the profit obtained was £87,800. The ore in the mines contains from 16 to 18 per cent. of copper. In 1912 the production was 40,000 metric tons of ore and 3,000 metric tons of copper, but in 1913 the progress of the company was described as disappointing, the amount of copper produced being only 3,280 metric tons.

In addition to the above, there are various native enterprises. In the Okchi valley in the Sangesur district of Elisavetopol, old mines of great productivity have been reopened, but pack-horses are the only available means of transport. The Katar mine in Sangesur is now worked by electricity. In the Pambak Mountains, also in the Government of Elisavetopol, there are mines at Delijan, Sirimadan, Sagali, Mishkan, and Seifalu; at the last of these the ore yields from 20 to 30 per cent. of copper. The most important native companies are the Melik Azariantz, the Kunduroff, and the Grielsky.

The output of copper in Caucasia was 7,536 metric tons in 1908, 9,520 in 1909, and 7,631 in 1910. In 1912, 303,225 metric tons of ore were mined, of which 200,000 were smelted, yielding 9,270 metric tons of metal. In 1913 the production was 9,220 metric tons. The figures for 1912 and 1913 refer to the British, French, and American companies only. It is not clear whether those

for earlier years include also the production of the native undertakings, but in any case their quota is comparatively small. In 1913 Caucasia furnished 31 per cent. of the total Russian output. All Caucasian copper is disposed of in Russia.

Unexploited copper exists in the Naltchinsky Hills and over a small area on each side of the Ossetian Military Road; in both cases the deposits are estimated to be rich.

The production of *Glauber's salt* in Tiflis in 1910, amounting to 725 metric tons, represented nearly half of Russia's total output.

Iron is worked only spasmodically. It occurs chiefly in the Government of Elisavetopol, at Chinarlidz, where the veins are from 2 to 21 metres thick, and as haematite at Sirimadan in the Pambak Mountains and in the Boyan valley. Nearly 2,000 metric tons were produced in 1908, but in no subsequent year does anything approaching that amount appear to have been obtained.

Lead.—There are extensive deposits of argentiferous lead, but they have been little worked. The largest production is that of the Alagir Smelting Co. in Terek; but the metal also occurs in the Lialvar district, in the upper valley of the Kura, and near Kedabek, and shortly before the war was found near Akmetovskoi station in Kuban.

Manganese.—The principal deposit covers an area of nearly 100 square miles in the Kvirili valley in the Government of Kutais, the head-quarters of the industry being at Chiaturi. The ore contains on an average 40 per cent. manganese, 0.16 per cent. phosphorus, and 8 per cent. silicon, but in some workings the proportion of manganese is as high as 50 per cent. The ore is got out by means of hand picks, and is sorted by hand in a primitive way. It is soft and readily mined, and the firmness of the rock renders extensive timbering unnecessary. The miners do not fully exhaust the drifts, but work on them until they become dangerous or, on account of diminishing yield, unremunerative, a point which is soon reached owing

to unscientific methods of removal. Much ore is consequently wasted. Since 1909 an increasing amount of ore has been washed for the preparation of ferro-manganese, and this has resulted in the serious pollution of the River Kvirili, which runs through the mining district. Regulations have been made to control the practice of discharging refuse into the river, and plans formed to collect the refuse-laden water in an artificial basin, where it could be purified and utilized for generating electric power to be employed in the ferro-manganese furnaces. Little improvement, however, had been effected by 1914.

Many small native firms are occupied in manganese-mining. A little before the war foreign capitalists were acquiring manganese-bearing land, which is usually leased in small lots of from half an acre to 50 acres in extent; about 1910 there was an extensive acquisition of unworked land by German firms. The recent tendency has been for the control of the industry to pass from small to large concerns.

There was a heavy slump in manganese just before 1908, but since that year the output has greatly increased: in 1910 it amounted to 548,300 metric tons; in 1911 it fell again to 451,600 metric tons, but in 1912 it rose to the high figure of 913,500 metric tons, and in 1913 to 1,051,500 metric tons. Nearly the whole output is exported; export figures are given on pp. 83 and 84. The trade was very heavily hit by the war.

Chiaturi competes with India and Brazil for pride of place as supplier of manganese to the world. It has, however, been handicapped by difficulties of transport, though favoured to some extent in the matter of freight rates. The Sharopan-Sachkeri railway lies some distance from the mines, and the ore has to be conveyed in carts or on pack animals to the station, whence further carriage to Poti or Batum is both slow and expensive. The Association of Manganese Producers (see p. 79) had up to 1914 failed to secure from the State anything beyond promises of improvement.

Other places in Caucasia at which manganese occurs are Kvartala in Batum, where the French Manganese Ore Co. had arranged for the erection of plant at the end of 1913, Seifalu in Elisavetopol, and in the neighbourhood of Samtredi and Novo-Senaki.

Huge beds of *marl* are now being exploited near Novorossiisk by the cement companies there.

Salt.—There are rock-salt deposits in Erivan and Kars, and a certain amount of evaporated salt is produced in Baku and Daghestan. The total output of salt in 1910 was 28,340 metric tons, which consisted of 16,600 tons of rock-salt from Erivan, 6,930 tons of rock-salt from Kars, 4,370 tons of evaporated salt from Baku, and 440 tons of evaporated salt from Daghestan. The total output in 1911 amounted to 37,830 metric tons, and in 1913 to 32,260 metric tons.

Zinc is worked by the Alagir Smelting Co. at Sadon and Alagir, and from blende ore near Vladikavkaz. The company's works, which are 60 miles from the mines, are fitted with modern plant. In 1914 the company were planning a new exploitation, on a large scale, of both lead and zinc. The output of zinc in 1910 was 3,400 metric tons, and in 1912 the combined production of zinc and argentiferous lead was 26,000 metric tons.

Other Minerals.—At Sogliik, near Dash Kessan, in the Gokcha range (Erivan) there is an inexhaustible supply of *alunite*, containing 37·58 per cent. of alum, but it is very little worked. *Antimony* is mined in small quantities in Tiflis. There is *arsenic* ore at Bechenakh, but up to the present it has not been exploited. There is a small output of *asbestos* from Sharopan, Vzhinevi, and Lechgum in Kutais. There are excellent *bitumen* beds on the Black Sea coast, and *asphalt* is a by-product of the petroleum industry. *Cobalt* is mined in small quantities in Elisavetopol. White *diatomite* (infusorial earth), containing 87 per cent. of silica, is worked at Kissatip, near Akhaltsikh (Tiflis). *Emery* is found at Karabulakh (Elisavetopol). *Gold* exists in very small quantities in the alluvial deposits of the Alindja river, and in the ore of the

Kedabek copper mines. *Graphite* and *mercury* have recently been found. *Pyrites* is worked for sulphur in Elisavetopol and Tiflis, and sulphur is also obtained at Bechenakh and Gunur, in Kutais.

(5) MINERAL OILS

(a) Sources of Supply

Mineral oil, the great source of Caucasian wealth, is found chiefly in the Governments of Baku, Terek, and Kuban, although small quantities occur elsewhere. Hitherto by far the richest oil-producing area has been that of Baku, comprising the Apsheron Peninsula, Cheleken Island and Holy Island, and the outlying district of Benagadi. In the Apsheron Peninsula lie the older oil-fields: the five belts of Balachani, Sabunchi, Romani, Bibi-Ebyat, and Zabrat, and the comparatively newly-discovered oil district of Surachani, about 12 miles away. Second to those of Baku in importance and apparently of increasing productivity are the Grozni fields in Terek Province. The Maikop oil-fields, in Kuban Province, have since 1912 yielded unsatisfactorily.

In 1908 the Caucasian oil-fields supplied about 22 per cent. of the world's total production, but the proportion has sunk very considerably since then. General figures of the output from 1910 to 1916 are given in Table II of the Appendix (p. 93).

The products of the mineral oil include illuminating oils, engine and cylinder oils, solar oils, goudron (asphalt), benzene, residuum (*ostotki*), and crude oil (untreated). Of these, *ostotki* was for years treated as waste, but it is now by far the largest product, having superseded kerosene, which bears a heavy duty, while *ostotki* is untaxed; it has a large sale as fuel for factories, railways, and steamships. Balachani oil is the heaviest in quality; *ostotki* is not so readily formed from the Bibi-Ebyat and Grozni products. Cheleken Island and Telav produce ozokerite (or paraffin wax). The lowest percentage of benzene

is yielded by Balachani. Grozni oil is particularly adapted for the manufacture of first grade petrol, great quantities of which have accumulated there during the war.

The following particulars may be given of the chief oil-fields :

(i) *The Baku Fields*.—The first well was bored at Baku in 1871. Since that year the oil-fields have been developed one after another, with capital supplied partly by the Swedish firm of Nobel Brothers, and partly by the French Rothschilds and others. The Balachani-Sabunchi-Romani field occupies about 2,640 acres on a plateau a few miles from the Caspian Sea.¹ At Sabunchi eight very productive belts are known. At Romani there was a natural depression into which ran the water and refuse from adjoining properties, forming a lake of 432 acres; this was drained in 1904 by the Moscow Caucasian Co., by means of a subterranean channel, and an outlet into the Caspian Sea was also provided, which serves as a permanent drain for the whole oil-field. Bibi-Ebyat contains five rich belts, but its productivity is declining. Puta, a continuation of the Bibi-Ebyat fields, has been very little developed. Zabrat has been prospected by a French company, but the yield is only spasmodic.

Between 1908 and 1911 there was a marked decrease in production in all but one of the old Baku oil-fields, as seen by the following comparative table :

| | <i>Balachani.</i> | <i>Sabunchi.</i> | <i>Romani.</i> | <i>Bibi-Ebyat.</i> | <i>Total.</i> |
|------|-------------------|------------------|----------------|--------------------|---------------|
| | Metric tons. | Metric tons. | Metric tons. | Metric tons. | Metric tons. |
| 1908 | 1,124,784 | 3,181,936 | 1,222,304 | 1,914,128 | 7,443,152 |
| 1911 | 755,200 | 2,131,200 | 1,019,200 | 1,225,600 | 5,131,200 |

After 1911, in spite of new borings, the production, though increased, did not reach the 1908 level, whilst after 1914 the Surachani output is reckoned in with the old Baku output, and the separate yield of the original oil-fields cannot therefore be calculated. There

¹ On this plateau 120,000,000 gallons of oil were thrown up in 1873 before it was understood how to conserve it.

² Ten months only.

are, however, many localities left in the Apsheron district to be tested when the exhaustion becomes more pronounced.

Surachani, the new Baku oil-field, gives a supply of natural gas, which, through the enterprise of the Baku Naphtha Co., is now conducted in 8 and 10 inch pipes to the various oil-fields, where it is used for boiler-heating. Some wells, about 1,200 ft. deep, yield about 5,000,000 cubic ft. of gas daily. Surachani wells also produce white oil, a medicinal product, of which the output is about 48 tons daily. Crude oil, which lies beneath the natural gas, has also been exploited with good results.

In 1902, 24,000 workers were employed at Baku ; by 1916 this number had doubled. The average number of producing wells in the Baku district in 1914 was 2,894, the output per well before exhaustion being from 40,000 to 50,000 tons.

Holy Island produces oil which is shipped by Nobel Brothers in its crude state to the Volga for fuel. The output in 1914 was 94,000 tons.

Cheleken Island produces a heavy petroleum, from which ozokerite is extracted. In 1912 the yield was 209,000 tons, but since that year it has greatly declined. The oil is sent abroad to be refined.

Benagadi produces a very heavy oil, pumped through pipe lines to the railway. The Benagadi output was steadily increasing in 1914. Digga and Sarai localities, near Benagadi, are both petroliferous, and in 1914 were about to be exploited by Baku companies.

The Baku oil-fields seem to have escaped damage and pillage during the military events of 1918.

(ii) *The Grozni Fields* consist of a belt of petroliferous land, 1,800 ft. wide and about 7 miles long. The oil-bearing strata usually lie 1,500 to 1,800 ft. below the surface, but sometimes even deeper, and the deposits are impregnated with lime. The Grozni oil often issues in great spouts, but the life of the wells is usually short. At Mamakai the oil reaches the surface, and has been obtained from hand-dug wells for fifty years past.

The European Petrol Co., a British concern, was founded in 1893 to exploit the Grozni oil, and another British company, the Kazbek Syndicate, struck a prolific fountain in 1903. The Anglo-Terek Co. found oil on the western field in 1907 at 2,500 ft. deep, and the parallel ridge of Sundja is expected to prove rich. The area occupied by wells in 1913 was 2,497 acres, in the hands of twelve firms. Several new fields were proved in 1913 in the neighbouring localities of Belik and Chermoff, and 200,000 claims have been staked; the whole country round Grozni for a radius of about 30 miles has been covered with oil claims. The principal new oil districts are Sleptsovskaya, Voznesenskaya, Broguni, Kakhanovskaya, Isstissu, and Chir-Urt nearer Petrovsk. Pipes from both eastern and western fields take the oil to Grozni station, and in 1914 pipes were completed leading to Petrovsk, on the Caspian Sea.

In 1917 the Grozni oil-fields employed 9,000 workmen. The average number of producing wells in that year was 398.

The Grozni oil-fields suffered much more than those of Baku or Maikop in 1918. Almost all the oil-wells and plant have been destroyed or burnt, so that production will be impossible for some years to come.

(iii) *The Maikop Fields* have been scientifically exploited since 1908 only, chiefly by British capital. There are four districts, Shirvansky, Apsheronsky, Nephtianoi, and Hadizhensky, and the wells number about 200. Before the completion of the new Armavir-Tuapse railway, the oil went either to Novorossiisk or Petrovsk. There are two pipe lines, one from Maikop to Tuapse, the other from Shirvansky to Ekaterinodar for transport on the Ekaterinodar-Novorossiisk branch railway; both pipes belong to the Maikop Pipe Line and Transport Co., Ltd., a British concern. Nearly all the Maikop oil has been consumed in Russia. It is refined at Ekaterinodar. The output has been very disappointing, and has steadily declined since 1912.

(iv) *Other Sources*.—Berekei and Kaikent in Daghestan have been exploited, but in both the oil is damaged by the inflow of sulphurous water. Berekei was closed in 1907; Kaikent, in the hands of the Anglo-Russian Petrol Co., only yields spasmodically.

Kaluga, in Kuban Province, showed oil in 1907, but work only began in 1914. The Vladikavkaz Railway Company hold 15 plots of promising petroliferous land there, and intend to use the oil for the railway. The prospects are good.

In Tiflis Government two localities have been exploited, one east of Tiflis and the other at Telav. In 1904 the Southern Oil-Fields of Russia Company was working there, and in 1914 the Tiflis locality was again being explored.

In 1914 prospecting was going on at many other places, where there are unmistakable indications of large quantities of oil, notably at Guria, where a thick black oil was found, and at Shemakha, Jevat, and Lenkoran. Jingy (or Djeng), near Shemakha, forms the extremity of a huge oil-field with a reputed area of 70,000 square miles, lying chiefly in the Ural Province. Nobel Brothers have already sunk wells there with good results; in October 1915, 225 plots of petroliferous ground near Borz and Jingy were declared open for new claims.

Oil is also obtained from numerous wells on small plots worked by peasants, especially in the Grozni and Maikop districts.

(b) *Methods of Working*

At Baku the Russian system of boring is still in use, the American, although generally superior, being declared to be unsuccessful on account of the frequency of landslips and fractured tubing. Another view, however, is that the continued use at Baku of a comparatively wasteful system has been a factor contributing to the successful competition of American oil in the world market, in spite of the fact that at Baku a few square miles produce as much oil as several

thousands of square miles in America, and that a single Baku oil fountain has actually yielded as much in one day as 25,000 wells in America. The American system has been adopted at Grozni and Maikop. Manila ropes have been very generally replaced by wire ropes. Pumps cannot be used at Baku to raise the oil, and it is therefore baled by steam or electric power; air-lifts have recently been found successful. In default of fresh water, steam at Baku has to be obtained from seawater, which causes rapid destruction of the boilers.

Oil is conveyed to the Black Town (Baku) refineries in pipe lines, of which in 1906 there were 39 in private ownership besides the State pipe lines. Large firms had their own pumping stations in addition to those provided for general use. Fountain oil was pumped direct to the stations and measured there. Some of the Bibi-Ebyat oil goes by barge.

From Baku the oil has four means of transit: by rail to Batum or Poti; by pipe line (kerosene) to Batum; by rail to Petrovsk; and by tank-steamer to Astrakhan and thence up the Volga. The last route, by which the Volga factories are supplied, is only open from April to October.

Electric power was steadily replacing steam power on the oil-fields in 1914. The Spies Petroleum Co. at Grozni run their works almost wholly by it. There are generating stations at Sabunchi, belonging to Nobel Brothers; at Zabrat, belonging to the Société de la Caspienne et de la Mer Noire; at White Town (1,200 horse-power); and at Baieloff (4,500 horse-power). At Sabunchi and Zabrat the Surachani gas is used to generate electricity.

(6) MANUFACTURES

Ciscaucasia and Transcaucasia have each their own characteristic industries, which, in the former case, are those proper to a region predominantly agricultural, and in the latter are dependent on the output of the oil-fields.

The *caviare* industry of the Caspian littoral is declining, but is still important (see p. 62).

Cement is made at Novorossiisk, Gelendjik, Tuapse, and Yeisk. It is used for lining oil wells, and also for harbour works and other purposes. There were nine large cement factories at Novorossiisk in 1917, with an annual output of 4,600,000 barrels, the most important being the Black Sea Cement Manufactory, the Franco-Russian Cement Manufactory, and the Zep Cement Works.

Leather-work is a fairly extensive industry, of which the chief centres are Alexandropol, Elisavetopol, Shusha, and Tiflis. Tanning is done at Tiflis, and saddlery is well made in Daghestan and the Black Sea districts.

Metallic and Allied Industries.—The copper and zinc smelting works have already been mentioned (see pp. 63–64 and 67). There are iron foundries at Ekaterinodar, Baku, Tiflis, Batum, and Armavir. ‘Colonist’ reaping machines are made at Novorossiisk, and galvanized iron roofing and hardware goods at a factory at Baku. Among manufactures subsidiary to the oil industry are those of oil-cases and oil-cans, carried on at Baku and Batum, and of wire rope, carried on at several factories at Baku. The manufacture of small-arms, once a flourishing industry, is declining, but is still carried on at Tiflis and Nukha and in the bazaars of Daghestan and Sukhum. The number of skilled native workers in enamel, filigree, and inlaid metalware is also decreasing.

The *milling* industry is second in importance only to the refining of oil. There are many flour-mills worked by water-power; those in Stavropol produce 300,000 tons of flour per annum, and those in Kuban, about the same amount; the mills of the Black Sea district give some 20,000 tons yearly. Besides the flour-mills, there are also mills for crushing sunflower seed, linseed, and cotton seed.

The *oil refineries* are the most important manufacturing enterprises in the country. They exist at Baku,

Grozni, and Ekaterinodar, and, on a smaller scale, at Armavir. There are a number of large refineries at Black Town, near Baku, where crude oil is refined to produce kerosene. In 1914 the oil products received from the stills amounted to 4,354,000 tons, while in 1916 there were nearly 5,000 men employed. At Ekaterinodar the oil from Maikop is treated, and the decline in the production from that field has greatly reduced the industry there.

Potash is made in Kuban from sunflower stalks, and in 1910 a combine of eighteen firms of potash manufacturers was formed. The industry has doubtless been affected by the decline of sunflower cultivation (p. 54).

Of the *textile industries*, which are in a very backward state, silk-weaving and carpet-making are the most highly developed. Silk is woven at Tiflis, and since the revival of sericulture, steam silk-mills have been started at Shusha and in the Elisavetopol Government. Felt and carpets are made at home by women—chiefly at Shusha, but also at Akhaltsikh, Akhalkalaki, Gadrut, Kasapet, and Kubrassy—with wool bought from the Tatars. Both hand-knitted and woven woollen goods are made. Cotton is spun at Tiflis and Akhaltsikh, and a rough cotton stuff called *khami* and a little linen of indifferent quality are woven by hand.

There are seventeen *tobacco* factories in Caucasia, six being in Tiflis, four in Kuban, two in Daghestan, two in Baku, two in Sukhum, and one in Terek. The industry is controlled by a dozen large firms, and the output in 1914 was 2,395 tons.

Wine-making and Distilling.—There is a good deal of wine made, especially in the Province of Kutais; the best quality is produced in the Gelendjik district, and Echmiadzin is one of the great centres. The best known type of wine is the Riesling. At Abrau, a Crown estate near Novorossiisk, is made the Abrau-Dursan champagne, which is considered equal to a good French champagne. The total output of wine in Caucasia was 27,449,350 gallons in 1911 and nearly

22,000,000 gallons in 1914. Were French methods of manufacture employed more extensively, the industry might be greatly developed. There is an Italian firm at Kislovodsk in Terek which makes Riesling and other wines under modern conditions.

Distilling is in part an independent industry and in part a means of utilizing the inferior wines. In 1913 there were 15 distilleries—8 in Kuban, 4 in Terek, 2 in Stavropol, and 1 in Kutais—and the output of alcohol in that year was 8,193,000 gallons, of which more than two-thirds were distilled in Kuban.

Other industries of the country may be very briefly enumerated. A *tea* factory has recently been opened at Chavka, and has an annual output of about 55 tons, and other factories are (or were) being built with Government aid at Baku and Ozurgeti. A *beet-sugar* factory, started in 1913 at Gulevichi, was brought to a standstill for want of beetroot in 1914. There are three *saw-mills* at Tiflis; the Italian firm of Sbrajavacca has saw-mills at Socilava and Poti, which turn out 300 cubic metres daily, and Ananov Brothers have small saw-mills in Kutais, driven by electric power. A factory for making *bamboo furniture* was opened at Chavka in 1907. There are nine *brick* and *tile* factories at Baku and four tile factories at Tiflis, while *pottery* works have been opened at Ksauka, Tiflis, by an Italian firm, which also makes tiles. *Soap* is made at Tiflis, and *sulphuric acid* at Baku.

(7) POWER

In 1914 there were ten chief power-stations: near Beli Ugol on the Podkumka river (1,000 horse-power); near Sukhum on the Besletk river (owned by the Sukhum Electric Co.); near Gagri on the Jockvar river (working the climatic station); at Batum (water-driven), supplying Batum with electricity; at Kutais, supplying power for Ananov Brothers' saw-mills; at Sanain (700 horse-power), belonging to the Caucasus Metallurgical Co.; at Katar copper mines (Sangesur

district); at Dzansul copper mines (1,000 horse-power); and two at Erivan.

Smaller electric plants are to be found at New Athos Monastery (at Goro); at Borzhom, on the Grand Ducal estates; and at Akhalkalaki, in private hands.

The electric power-stations on the Baku oil-fields have already been mentioned (see p. 73).

The water-power offered by the rapid streams of the Caucasus has hitherto been almost entirely neglected, but in 1914 an important scheme was set on foot for the erection of two large power-stations, one on the Terek at Kazbek on the Georgian Military Road, and the other at Elenoffka, in Erivan, utilizing the waters of Lake Gokcha. The concession for the erection of turbines and generators for supplying power to all the industrial centres of Caucasia as well as for the lighting of cities was granted to a British company, and preliminary work had been carried out by August 1914.

A scheme was also under discussion in 1913 and 1914 for utilizing the refuse-laden overflow of the River Kvirili for generating electric power to be used in ferro-manganese furnaces.

(C) COMMERCE

(1) DOMESTIC

(a) *Towns, Markets, and Fairs*

Baku, besides being the refining centre for the oil produced in the neighbouring fields, is also a distributing centre for the imports of Central Persia and Transcaspia. The volume of trade which passed through Baku to and from Persia and Russian Central Asia in 1912 amounted to over 5,000,000 tons, and was steadily increasing in 1914 at the expense of that of the trans-Armenian and trans-Mesopotamian routes. The population of Baku and the adjacent oil-fields in 1914 amounted to nearly 380,000. In 1909 the municipality raised a loan of £2,842,000 (of which £1,300,000 was

subscribed in London) for the purpose of a new water-supply, drainage, and the construction of an electric station. Only the first of these three works has been carried out. A description of the port of Baku is given above, p. 45.

Ekaterinodar is the centre of the increasingly important trade in tobacco. It has an annual fair, at which the value of goods exchanged is said to be about £400,000. There are several refineries, dealing with oil from the Maikop fields. As the town is both an agricultural and an industrial centre, experimental fruit-farms and technical schools have been opened there.

Tiflis, the seat of Government, is a fine modern town, with electric light, electric trams, and cold storage facilities. Only in the oriental quarter are there open bazaars. It is the distributing centre for Russian manufactured goods, and also does a large transit trade in Persian exports.

Vladikavkaz is the principal town of Ciscaucasia and an important agricultural centre. *Elisavetopol* is a centre for trade in wine, fruit, and cotton; *Erivan* and *Kutais* for trade in wine and fruit. *Stavropol*, *Akhalsikh*, *Alexandropol*, *Kars*, *Grozni*, *Nukha*, and *Maikop* are all agricultural centres, the last especially for wine, while *Nukha*, *Akhalsikh*, and *Alexandropol* are particularly concerned with fruit. *Grozni* and *Maikop* are also petroleum centres.

The principal centres of industry are *Tiflis*, *Baku*, *Batum*, *Ekaterinodar*, *Shusha*, *Novorossiisk*, and *Chavka*. *Batum* is declining as an industrial centre, whilst *Baku* and *Ekaterinodar* are progressing; both these last-named towns doubled their budgets between 1904 and 1909.

All Transcaucasian towns have their bazaars, and in the less populated and poorer districts monthly fairs take the place of shops.

Batum, *Novorossiisk*, *Poti*, and other ports are described above (pp. 42-46).

(b) Organizations to promote Trade and Commerce

It is only within recent years that any efforts towards the organization of the trade and industry of Caucasia have been made, but before the outbreak of war a good deal had already been done in that direction. The first chamber of commerce in the country was established at Batum in 1910. The number of trade associations increased rapidly, especially in Ciscaucasia, where the Cossacks take kindly to co-operation, and many credit societies were formed.

The chief organizations confined to particular industries were the Association of Baku Naphtha Producers, the Manganese Producers' Association, and the Caucasian Cotton Growers' Association. The first of these levied a tax of 5*d.* a tin on oil products, which it expended on hospitals, &c. It had a statistical bureau, published journals, and held an annual conference which was attended by delegates from the committees of the various oil interests and by a representative of the Minister of Agriculture. The Manganese Producers' Association also levied a tax, which was devoted to improvements in plant, &c. It brought pressure to bear on the State to improve railway facilities and rolling-stock, and was anxious to secure the connexion of the mines with the railway, but did not succeed in this. One of the objects of the Caucasian Cotton Growers' Association was to increase the cultivation of cotton in Caucasia and Russian Central Asia, so that the Central Russian mills could be fed entirely with home-grown supplies. Extensive irrigation was among its schemes.

(c) Foreign Interests

The largest field for the investment of foreign capital in Caucasia is of course the oil industry. This being a matter of international finance, it is impossible to gauge with precision the share which any particular nation has therein; but it was stated in 1919 by an expert of the *Mining Journal* that the controlling

power was the Deutsche Bank. Of the firms engaged in extracting oil, the Swedish house of Nobel Brothers has the largest interests, its production being double that of any other single firm. French companies financed by the Rothschilds also figure largely in the Baku fields. The chief of these is the Société de la Caspienne et de la Mer Noire, which in 1912 combined with others, among them the British concern known as the Schibaeff Company, to form the Royal Dutch Shell Combine, which is said to be responsible for 11·8 per cent. of the total Baku output. British interests in the Baku fields are comparatively small, but at Grozni and Maikop they are predominant. During the Maikop boom sixty-six companies were formed in London, but of these only five are still working. In 1913 a British company, the Guria Petroleum Corporation, Ltd., acquired a lease of some 70 square miles of land between Batum and Poti. Estimates of the total value of British capital invested in Russian oil-fields vary from £10,000,000 to £17,000,000. Armenian interests are rapidly increasing, especially in the new oil districts round Grozni.

Copper is mainly mined with the aid of British, French, and American capital. The manganese industry, on the other hand, has hitherto been for the most part in native hands, though in recent years British, Dutch, German, and French have begun to participate in it.

Franco-Jewish financiers supplied the capital for the construction of the Transcaucasian railway, which was taken over by the State in 1906. In connexion with the railway expansion schemes of more recent date the Anglo-Russian Trust Company, having a capital of £1,000,000 and debenture stock amounting to £500,000, was formed to place the shares of the Armavir-Tuapse, the Black Sea-Kuban, and the Kakhétian railways on the London market, principal and interest in each case being unconditionally guaranteed by the Russian Government. The same company also invested in the municipal 5 per cent. gold bonds of the city of Baku.

British capital has played an important part in various other public enterprises.

Certain minor commercial undertakings, such as pottery-making at Tiflis, wine-growing in Terek, and timber exploitation in the Rion district, are in Italian hands.

(d) *Methods of Economic Penetration*

For some years past the Germans have adopted their usual business methods with success in the Caucasus.¹ They appointed agents who spoke Russian fluently, and who were invested with full powers to act for the firms they represented. A single firm frequently offered widely varying lines of goods, of which the agents could produce samples. All catalogues and price-lists were printed with Russian quotations in the Russian currency, and were therefore much more popular than those of British firms, which were invariably presented in English only, with prices quoted in English money.

The nearest British agencies were at Rostov-on-Don. British firms were unwilling to give the credit expected by Russian merchants, and appeared indifferent to local prejudices and preferences in regard to the nature of goods to be supplied. They were, therefore, at a disadvantage in competing with the more enterprising German. In certain lines of goods, such as ready-made clothes, haberdashery, boots and shoes, drugs, all kinds of fancy goods and stationery, Germany and Austria-Hungary held the market; and they were beginning to encroach on the steel, agricultural machinery, engine, and motor trades, once almost exclusively British.

(2) TRADE WITH RUSSIA

Most of the manufactured goods required by Caucasia are supplied by Russia, the chief exceptions being machinery and other metal goods; produce of various

¹ In 1916 a German-Georgian society was established in order to cultivate economic intercourse between the two countries.

kinds is sent in exchange. Ciscaucasia, indeed, produces little that cannot be obtained in other parts of the Empire, except the oil of Grozni and Maikop; but Transcaucasia is in somewhat the same relation to Russia as a sub-tropical colony to a northern mother country.

Russia now takes by far the greater part of the Caucasian oil output. At one time no more went thither than was shipped to foreign countries, but the labour troubles of 1905 combined with the competition of America to deprive Baku of its market not only in China and Japan but even in Arabia and Mesopotamia. Compensation for this loss has, however, been found in the increased demand from Russia. In 1913, out of 6,000,000 tons of oil products sent out of Caucasasia, 5,000,000 tons went to Russia. Of these, at least 3,000,000 were residuum, which is used as fuel for steamers, locomotives, and factory boilers; 1,000,000 were crude oil; and 1,000,000 refined oil. The export to foreign countries, on the other hand, consisted almost exclusively of lubricating and illuminating oil.

Other commodities which Caucasasia sends to Russia are copper, tobacco, wine, raw silk and cocoons, wool, cotton, and fruit. In the case of tobacco, cocoons, and wool, there is also a foreign export, but it is small in comparison. Russia also takes practically all the cement¹ which is shipped from Novorossiisk, and probably the greater part of the live-stock.

(3) FOREIGN

(a) Exports

It is not easy to come to any conclusion as to the value of the export trade of Caucasasia immediately before the war. No statistics are available for shipments from the smaller ports or for overland trade with Turkey and Persia, but it is unlikely that either was of considerable value. A more serious difficulty is with regard to the value of trade passing through the

¹ 234,000 tons in 1910; 301,000 tons in 1912.

three chief ports—Batum, Novorossiisk, and Poti. The latest year for which complete figures are available is 1908, when exports from Batum amounted in value to £3,242,138, from Novorossiisk to £2,957,686, and from Poti to £478,345, so that the total value was £6,678,169. In 1913 the total exports from Batum and Poti amounted in value to £5,388,172. A moderate estimate for the export trade of all three ports in that year would be about £14,000,000. If sales to Russia were reckoned as part of the export trade, its total value would hardly have been less than £30,000,000.

The following table shows the value of the principal exports from the three chief ports in 1908 :

| Article. | Batum. | Novorossiisk. | Poti. | Total. |
|--------------------------------------|-----------|---------------|---------|-----------|
| | £ | £ | £ | £ |
| Carpets . . . | 36,000 | — | — | 36,000 |
| Cement . . . | — | 26,533 | — | 26,533 |
| Grain and flour . . | 40,402 | 1,573,197 | 12,735 | 1,626,334 |
| Liquorice . . . | 93,765 | 37,687 | — | 131,452 |
| Manganese . . . | 11,130 | — | 458,250 | 469,380 |
| Oil products . . . | 2,441,649 | 363,747 | — | 2,805,396 |
| Oil-cake . . . | 19,334 | 626,900 | — | 646,234 |
| Potash . . . | — | 68,632 | — | 68,632 |
| Seeds (linseed and sun-flower) . . . | — | 77,574 | — | 77,574 |
| Silk and cocoons . . | 87,000 | — | — | 87,000 |
| Timber . . . | 348,200 | 47,975 | 6,190 | 402,365 |
| Tobacco . . . | — | 25,272 | — | 25,272 |
| Wool . . . | 48,363 | 15,624 | — | 63,987 |

A few additional particulars may be given with regard to some of these exports :

Grain and Flour.—Wheat and barley were shipped largely from Novorossiisk, mainly to Germany direct or *via* Holland, while the export from Poti consisted almost entirely of maize destined for Turkey, Germany, and elsewhere. The values of the Batum and Poti exports in 1913 were £201,900 and £99,815 respectively.

Liquorice root was shipped from Batum mainly to the United States. The value of the export in 1913 was £148,700, but this was above the average, and the export is said to have ceased.

Manganese exported from Poti in 1913 amounted in value to £649,780, and that from Batum to £399,800.

Most of the Poti manganese went to Germany, which country in 1913 imported from Russia nearly 447,000 metric tons, most of which, if not all, must have come from Chiaturi.

Oil.—The market for western Europe has been captured by America, but considerable quantities were sent from Caucasia to eastern Europe. The largest export is from Batum, whence in 1913, 610,400 tons were shipped, amounting in value to £2,817,300. No details of the destination of this oil are available. The shipments from Novorossiisk, exclusive of those to Russia, amounted in 1913 to 170,339 tons, and were distributed as follows :

| | <i>Tons.</i> |
|-------------------------|--------------|
| France | 59,076 |
| Holland | 17,000 |
| Great Britain | 54,993 |
| Germany | 22,527 |
| Egypt | 12,300 |
| Gibraltar | 4,443 |

In the same year 26,500 tons were exported direct from Baku to Persia.

Oil-cake.—The export from Batum in 1913 was 12,445 tons, valued at £77,200. No figures of value are available for the much larger export of 149,244 tons from Novorossiisk. Germany was the chief buyer.

Seeds.—The export of linseed seems to have ceased, but a certain amount of cotton seed was exported to Liverpool, and the export of sunflower seed rose from 10 tons in 1908 to 5,873 tons in 1913.

Silk and cocoons were exported from Batum only, and in 1913 the value of the export was £207,700. In 1911, and presumably in other years, the greater part of the export consisted of cocoons imported from Persia or Central Asia. Nearly all the cocoons from the Caucasus went to Russia.

Timber was shipped from all three ports, but only at Poti was there a steady increase in the quantity exported, which rose from 1,541 tons in 1909 to 11,414 tons in 1913 ; this was due to Italian enterprise in the

Rion district (see above, pp. 61, 76). The export values from Batum and Poti in 1913 were £27,900 and £83,590 respectively.

Tobacco was exported from Novorossiisk, and, in much smaller quantities, from Batum. The Novorossiisk export gradually increased, as the quality of Kuban tobacco became better recognized in European markets, and during the Balkan wars Caucasian tobacco began to supplement Turkish. In 1913 the total tobacco export amounted to 4,950 tons, of which 2,000 tons went to Egypt and most of the rest to Germany and France, the United States and Great Britain at the same time taking small quantities. The Sukhum merchants were anxious to increase the export to the United States, but were opposed by the American Tobacco Trust. The value of the export from Batum in 1913 was £51,100.

Wool was exported mainly from Batum, but also from Novorossiisk. The shipments from Batum in 1913 amounted to 4,677 tons, valued at £222,800, and those from Novorossiisk to 185 tons. In all about 17,000 tons of wool were produced in Caucasia in that year, the balance being either sold locally or sent overland to Russia.

(b) Imports

The imports of Caucasia reach a much lower total value than the exports. Very few statistics are obtainable, no values being given in the British consular reports except for 1913, and then only for goods received at Batum. Imports at Novorossiisk were increasing steadily before 1914, but those at Poti were quite inconsiderable.

Of the total import value of £582,532 at Batum in 1913, £235,800 was assigned to sundries, and this heading must include all the textiles, stationery, china and glass, leather goods, fancy goods, &c. The chief imports specified were tin plates (for oil cases and cans) and machinery, of which the respective values were £112,832 and £106,500. The tin plates were supplied

largely, but probably not exclusively, by Great Britain and Turkey. The machinery came from America, Great Britain, and Germany, as well as from Russia. Agricultural machinery was supplied chiefly by the United States, with the exception of ploughs, which for the most part came from Germany. British agricultural implements, though frequently found in Ciscaucasia, are rarely seen in Transcaucasia. France took the leading part in supplying motor-cars, though they were also imported from Germany, Switzerland, Italy, the United States and Russia, and a few of superior quality came from Great Britain. Hardware, house-fittings, lifts, and central-heating apparatus were imported exclusively from Germany. Copper wire and copper sulphate came in considerable quantities from Great Britain, which also supplied fire-clay, iron-ware, carbolic acid, and the best quality of belting, the rest of the belting coming from Russia and Germany. Steel for Baku came exclusively from Austria-Hungary and tiles from France. Coal was imported at Novorossiisk from Great Britain and Germany: in 1913 Great Britain supplied 40,000 tons and Germany nearly 11,000; in 1914 Great Britain sent 164,000 tons. Small quantities of chemical fertilizers for experimental purposes were imported from Great Britain and South America. Textiles no doubt came in bulk from Russia, but Germany was working up a trade in haberdashery and Great Britain supplied a little cloth of fine quality to Baku. Great Britain had at one time a monopoly of the supply of china and glass, but in 1914 the supply came from Continental Europe.

The share of Great Britain in European trade with Caucasia was estimated in 1910 to be about 17 per cent., but in the import of certain classes of goods the competition of Germany was making itself more and more severely felt (see also above, p. 81).

(c) *Transit Trade*

Caucasia does a large and increasing transit trade between Europe on the one side and Persia and Russian

Central Asia on the other. In respect of trade with Persia it has largely supplanted Mesopotamia and Turkish Armenia, partly on account of the prohibition of the transit of goods from Europe to Persia through these countries, and partly on account of the superiority of the railway system. Baku is the chief centre of this trade, which is facilitated by the regular services between that port and Astara, Enzeli, and Bandar-i-Gaz. The total volume of trade which passed through Baku in 1912 was 5,338,837 tons, made up of exports from Persia, 194,249 tons, from Russian Central Asia, 583,774 tons; imports into Persia, 90,946 tons, into Russian Central Asia, 4,469,868 tons.

The chief articles exported from Persia in that year were rice, 68,135 tons; grain, 66,262 tons; cotton seed, 20,645 tons; wool and carpets, 6,516 tons; fruit, 5,914 tons; and timber, 4,056 tons. The export of raisins from Persia is a new and promising branch of trade.

The chief articles from Russian Central Asia were crude oil, 182,490 tons; timber, 122,963 tons; fish, 11,223 tons; drinking water, 98,310 tons; fruit, 5,859 tons; and cotton seed, 3,200 tons.

The chief articles imported by Persia were sugar, 49,796 tons; kerosene, 24,302 tons; flour, 9,692 tons; metals, 2,095 tons; and manufactured goods, 1,701 tons.

The chief articles imported by Russian Central Asia were petroleum products, 4,313,971 tons; rice, 35,779 tons; flour, 28,200 tons; metals, 15,000 tons; sugar, 8,232 tons; fruit, 7,966 tons; provisions, 6,872 tons; and tea, 6,624 tons.

The transit trade in tea had declined in comparison with 1910, when it amounted to about 18,000 tons (one-third from China and two-thirds from India).

These statistics from Baku only represent a part of the Russo-Persian transit trade, since considerable quantities of goods used to come by sea to Poti or Batum and were forwarded by rail through Tiflis and Julfa, a roundabout route, but the shortest available. The completion of the Julfa-Tabriz line in 1917 will

have greatly facilitated trade by this route. A direct line from Batum to Kars would, however, effect a still greater economy of cost and time.

A part of the Russian transit trade with Transcaspia and Persia passes through Petrovsk when the Volga is frozen. No statistics of this trade are available.

(D) FINANCE

(1) *Public Finance*

As a large portion of the Caucasus has only recently been incorporated into the Russian Empire, and parts of the country have been vacated by the former inhabitants owing to their dislike for Christian rule, the country has been treated more as a colony than as an integral portion of Russia. Details of revenue and expenditure are not easily available. It would, however, seem that vast sums have been spent in the past on settling the country, building military roads, &c., and that, owing to the rapid expansion of the oil industry and to fair success in some other mining ventures, together with sound agricultural development and the repute the country has gained as a tourist resort and for its medicinal springs, the revenue was gradually being adjusted to expenditure. The revenue is stated to have risen by 35 per cent. between 1906 and 1910.

Taxation in Russia as a whole was mainly indirect, only about 8 per cent. of the revenue being derived from direct taxes on land and trades and industries. Excise revenue furnished about 22 per cent., duties about 8 per cent., royalties (including the profit on the spirit monopoly) about 30 per cent., and profits from State undertakings (forests, railways, State factories, &c.) about 30 per cent. For the Caucasus considered separately, these proportions might differ in certain particulars. It is not possible to trace the incidence of expenditure in the Caucasus at all.

Local taxation is either urban or rural. In 1912 nine towns were entitled to raise revenue for urban

purposes, and in that year their aggregate revenue amounted to some £1,250,000 and their aggregate debt to £1,800,000. Baku had a revenue of £670,000 in 1912, Tiflis of £218,000, and Ekaterinodar of £147,000. The remaining towns had revenues of less than £50,000 each.

Rural taxation in Russia was undertaken by the *zemstvos*. Caucasia, however, had no *zemstvos*, and local matters were administered by official boards. The Province of Stavropol acquired a *zemstvo* in 1912, but no record of its activities is available.

(2) Currency

The paper money and coinage current in Caucasia is that of the Russian Empire, but certain silver coins of the old Georgian currency are still in circulation, namely, the *shaur* (worth 5 kopecks, or about 1d.), the *half abaz* (10 kopecks), the *abaz* (20 kopecks), and the *two abaz* (40 kopecks).

(3) Banking

The most important distinctively Caucasian bank is the *Banque de Caucase*, or *Banque de Commerce de Tiflis*, which has its head office at Tiflis and branches at Baku, Batum, Elisavetopol, Erivan, Grozni, Kars, Kutais, and Nukha. Smaller Caucasian banks are the *Tiflis Agrarian Bank* at Tiflis, the *Tifliser Kaufmannsbank* at Tiflis, and the *North Caucasian Commercial Bank* at Armavir.

The following Russian banks have branches in the Caucasus: the *Imperial State Bank*,¹ at Armavir, Baku, Batum, Ekaterinodar, Erivan, Stavropol, Tiflis, and Vladikavkaz; the *Banque Russo-asiatique* (of Petrograd), at Armavir, Baku, Batum, Yeisk, Ekaterinodar, Grozni, Novorossiisk, and Vladikavkaz; the *Banque de Commerce de l'Azoff-Don* (of Petrograd), at Armavir, Elisavetopol, Erivan, Yeisk, Grozni, Novorossiisk, Poti, Stavropol, Tiflis, and Vladikavkaz; the

¹ The functions of the Imperial State Bank are described in *Don and Volga Basins*, No. 53 of this series, p. 100.

Volga-Kama Commercial Bank (of Petrograd), at Armavir, Baku, Ekaterinodar, Grozni, and Tiflis, with sub-agencies at Elisavetopol, Erivan, Kutais, Maikop, and Novorossiisk; the *Russian Bank for Foreign Trade* (of Petrograd), at Armavir, Baku, Yeisk, Ekaterinodar, and Novorossiisk; the *Russian Commercial and Industrial Bank* (of Petrograd), at Armavir, Baku, Ekaterinodar, Novorossiisk, Petrovsk, and Stavropol; the *Banque de l'Union* (of Moscow), at Baku and Batum; and the *Banque Internationale de Commerce de Petrograd*, at Baku and Tiflis.

The *Peasants' Land Bank*, a State institution, advances money on the security of their crops to peasants desirous of acquiring land. Loans are made either to village communes, to associations of peasants, or to individuals; 2,297 such loans were made between 1883 and 1914—1,463 to individuals, 782 to associations of peasants, and 52 to communes.

Of late years there has been a great increase in the number of co-operative banks—including credit societies (open and mutual), joint-stock mortgage institutions, and mutual mortgage institutions—and a less marked increase in the smaller communal loan and savings banks. There were 95 mutual mortgage institutions in 1912. In 1914 there were 633 open credit associations, with a total membership of 308,952, and a total grant of loans to the value of £2,047,071; and 217 associations of mutual credit and savings, with a membership of 105,358, and a total grant of loans to the value of £1,296,706. Kuban has by far the greater proportion of both kinds of credit association. Of the smaller communal loan and savings banks there were 106 in 1914, of which 102 were in Stavropol.

(E) GENERAL REMARKS

Caucasia as a whole is handicapped by the length and severity of its winters and the mountainous character of the country. Up to 1914 little had been done to relieve these natural disabilities by the provision of

railways and roads, or of adequate accommodation at the ports. A further disadvantage lies in the lack of union among the population, accentuated of late by the increase of political power among the Armenians. The exodus of the Turks, who owned the prosperous tea and tobacco plantations, was an economic loss, though they may be replaced by the Armenians, Tatars, or Georgians.

The British consular report for 1913 described Caucasia as a poverty-stricken country, making only the slowest progress. This estimate seems harsh in view of the increasing exports from the three chief ports and the development of the large Russian oil trade. The oil-fields, however, are exploited by international capital, so that most of the profits derived from the trade leave the country. It should be noted, too, that in the new fields oil is found at greater depths than in the old, so that, unless American deep-drilling methods are introduced, production may cease to be profitable. The manganese industry has made great advances, but so far has yielded small profits only, on account of the cost of transport. The increased value of the cereal exports has chiefly benefited a few large landowners.

The fact remains that Caucasia contains great natural wealth, little exploited as yet. There are openings for development in the use of its forests and water-power; in the exploitation of minerals and mineral springs; in the cultivation of fruit, vines, tea, and, with the help of scientific irrigation, of cotton; and in the production of silk.

Novorossiisk has already shown a remarkable increase in prosperity, although, since its bombardment by the Turks, trade has temporarily deserted it. It was long since pointed out that, with improved harbour facilities and the increase of oil production, Batum had a fair chance of becoming a port of world-wide importance.

APPENDIX

TABLE I.—SHIPPING IN 1909 AND 1913

| | 1909. | | | 1913. | | |
|------------------------|-----------------------|-----------------|--------------------------|-----------------------|-----------------|--------------------------|
| | <i>Foreign trade.</i> | | <i>Coasting vessels.</i> | <i>Foreign trade.</i> | | <i>Coasting vessels.</i> |
| | <i>Number.</i> | <i>Tonnage.</i> | <i>Number.</i> | <i>Number.</i> | <i>Tonnage.</i> | <i>Tonnage.</i> |
| 1. <i>Black Sea.</i> | | | | | | |
| Batum . | 692 | 661,000 | 777 | 527 | 1,007,027 | 2,484 |
| Poti . | 383 | 516,130 | — | 155 (steamers) | 321,933 | 94 (sailing vessels) |
| Sukhum . | — | — | 1,034 | — | — | 4,790 |
| Novorossiisk | 563 | 1,242,000 | 1,645 | 458 | 810,806 | 1,932 (steamers) |
| 2. <i>Sea of Azov.</i> | | | | | | |
| Temryuk . | 36 | 123,340 | 168 | — | — | — |
| Akhtar Bay | — | — | 340 | — | — | — |
| Yeisk . | — | — | 913 | — | — | — |
| 3. <i>Caspian Sea.</i> | | | | | | |
| Baku . | 646 | 83,726 | 6,870 | — | — | — |
| Derbent . | — | — | 145 | — | — | — |
| Petrovsk . | 14 | 2,630 | 1,284 | — | — | — |
| Lenkoran . | 56 | 300 | 1,394 | — | — | — |
| | | | | <i>Tons loaded.</i> | | <i>Tons discharged.</i> |
| | | | | 5,400,000 | | 664,200 |
| | | | | 640,000 | | 233,754 |

TABLE II.—OUTPUT OF MINERAL OIL, 1910-16¹

| <i>Oil-fields.</i> | 1910. | 1911. | 1912. | 1913. | 1914. | 1915. | 1916. |
|-----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | <i>Metric tons.</i> | <i>Metric tons.</i> | <i>Metric tons.</i> | <i>Metric tons.</i> | <i>Metric tons.</i> | <i>Metric tons.</i> | <i>Metric tons.</i> |
| <i>Old Baku</i> . . . | 8,016,000 | 5,131,200 | 6,758,054 | 6,290,323 | 5,435,484 | 7,264,000 | 7,712,000 |
| <i>New Baku</i> . . . | 160,000 | 661,289 | 709,677 | 758,064 | 1,389,774 | — | — |
| <i>Maikop</i> . . . | 16,000 | 128,000 | 145,161 | 96,774 | — | 128,000 | 48,000 |
| <i>Grozni</i> . . . | 1,184,000 | 1,200,000 | 1,048,389 | 1,129,032 | 1,593,549 | 1,408,000 | 1,632,000 |
| <i>Hand-dug wells</i> . . . | — | 161,090 | — | — | 209,677 | — | — |
| Total . . . | 9,376,000 | 7,281,579 | 8,661,281 | 8,274,193 | 8,628,484 | 8,800,000 | 9,392,000 |

¹ The Maikop and other productions of 1914 and various other productions in 1912 and 1913 are classified under 'Other Sources', of which an unknown proportion is of Transcaaspian origin, so that the totals for 1912, 1913, and 1914 are really higher than the figures here given.

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MAPS

Caucasia is covered by five sheets (Batum, K. 37 ; Tiflis, K. 38 ; Baku, K. 39 ; Rostov, L. 37 ; Praskoveya, L. 38) of the International Map (G.S.G.S. 2758) published by the War Office, on the scale of 1 : 1,000,000.

A special map of Caucasia, on the scale of 1 : 2,027,520, has been published by the War Office (G.S.G.S. 2167).

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I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

THE administrative division of Siberia into Western and Eastern, which has now fallen into disuse, is here adopted for its political and historical significance. These two great areas are not separated by any marked natural boundary, although there is a strong contrast between the agricultural activity on the great plains of the former and the wild mountains and trackless forests of the latter.

Western Siberia comprises the Governments of Tomsk and Tobolsk, and Eastern Siberia those of Yeniseisk and Irkutsk, together with the territories (*oblast*) of Yakutsk, Kamchatka, Transbaikai, Amur, and Primorsk (Maritime Province), with the northern part of Sakhalin. The last-named has been dealt with separately (see *Sakhalin*, No. 56 of this series).

Eastern Siberia lies mainly between 42° and 75° north latitude and 80° east and 170° west longitude. On the north it faces the Arctic Ocean and on the east the Pacific. To the south the frontier, which is mountainous, borders on Mongolia, Manchuria, and Korea, the boundary between it and the last-named country being the River Tyumen. The western boundary is an irregular line running northwards from the Mongolian border to the Arctic Ocean at Taz Bay, roughly parallel to the River Yenisei and more than 100 miles to the west of it.

The total area of Siberia is 4,831,882 square miles, of which 3,968,970 square miles belong to Eastern Siberia, distributed as follows: Amur 154,795, Irkutsk 280,429, Kamchatka 502,424, Primorsk 266,486, Sakhalin 14,668, Transbaikai 238,308, Yakutsk 1,530,253, Yeniseisk 981,607. Yeniseisk, Yakutsk, and Kamchatka alone stretch northwards to the Arctic Ocean.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

The outstanding feature of Eastern Siberia is its great central plateau, 3000 to 5000 ft. in altitude, which enters Eastern Siberia from Mongolia and stretches north-eastwards through Transbaikal almost as far as the Pacific coast. This plateau has a breadth of 150 miles in the west, but narrows considerably to the north-east. It is bordered by ranges of mountains, averaging 7000 ft. in the north-west and 3000 ft. in the north-east, but on the south barely reaching the level of the plateau itself. These border ranges are known on the north-west as the Ulan Burgasi, Muya, and Chara mountains, on the south-east as the Great Khingan (Hingan) range, and as the Stanovoi and Anadyr mountains in the extreme north-east. Beyond the border ranges are the alpine zones, which on the north-west include the Baikal, Lena, Olekma and Vitim mountains, with an average width of 150 miles and altitudes of 5000 to 8000 ft. On the south-east this region extends across the Amur river and ultimately sinks beneath the waters of the Okhotsk sea. To the alpine zone succeed the high plains, about 200 miles wide and 1500 to 2000 ft. above sea-level, which merge into the low plains of the Arctic circle (about 500 ft. in height). A few mountain ranges, such as the Tunguska, the Viluisk and the Verkhoyansk, are scattered in the highland regions to the north-west; and in the extreme south-east the Sikhota Alin range borders the low plains and forms the coast of Primorsk. There are many volcanoes in Kamchatka, of which fourteen are active, the highest, Mount Klyuchevskaya, rising to 16,131 feet.

Since the plateau and the ranges parallel to it trend north-eastwards, the low plains which slope towards the Arctic are more extensive in the west than in the east. The great plateau, the alpine zones and the high plains are covered, save at their highest altitudes, with forests, but in the lowlands the *taiga* or forest type of country

merges into the *tundra*, which in summer is a misty treeless swamp covered with stunted berry-laden bushes, and in winter a frozen waste. The subsoil here is permanently frozen, a state of things which prevents drainage and offers an insurmountable barrier to agriculture.

Coast

The northern coast of Siberia is inhospitable and blocked by ice for the greater part of the year, the sea between the mouth of the River Lena and Bering Straits being open only during the months of August and September. On the Pacific coast Vladivostok is the chief port, and although its waters are frozen for three months in the year, ice-breakers render it approachable even during that period. Nikolaevsk, near the mouth of the Amur, has an open season from May to October, and is a fishing and fur centre, as also is Petropavlovsk, the capital of Kamchatka. Okhotsk and Ayan, resorts of Russian and Japanese fishermen, are mere villages.

River System

The great plateau forms the watershed of both the Arctic and the Pacific drainage systems, and as the trend of the land is north-eastward the longer rivers are to be found in the west and the shorter and swifter in the north-east. The Yenisei and the Lena, both over 3000 miles in length, offer great navigable stretches, whereas the Yana, the Indighirka, and the Kolima, approximately 1000 miles in length, afford only limited facilities for navigation. All the chief rivers of Siberia have many great tributaries, which have facilitated the rapid penetration of the continent.

The *Yenisei* rises in the mountains on the Mongolian border, in the neighbourhood of Lake Kossogol (Chubsugol), and pursues a winding course first westwards and then northwards to the Gulf of Yenisei in the Kara Sea. Its largest tributaries are all on the right bank, and the chief of them are the Angara or Upper Tunguska, which connects the Yenisei with Lake Baikal, the Stony Tunguska, and the Lower Tunguska.

The *Lena* rises in the southern mountains in the neighbourhood of Lake Baikal, and flows at first in a north-easterly direction. Near Yakutsk it bends to the north-west, and ultimately reaches the Arctic Ocean through a large delta. Of its many tributaries the chief are on the right bank, the Vitim, the Olekma, and the Aldan, with its affluents the Amga and the Maya. All these rise, like the *Lena* itself, in the southern mountains. On the left bank the largest tributary is the Vilyui, which has a course parallel to that of the main stream.

The *Amur* is formed by the junction of the Shilka and the Argun, which rise in the mountain mass to the north of Mongolia. The Argun, and afterwards the Amur itself, forms part of the boundary between Manchuria and the Amur territory. From the junction of the Shilka and the Argun the Amur flows in a winding course north-eastwards until it reaches the Gulf of Amur in the neighbourhood of Nikolaevsk.

Lake Baikal, the largest of Siberian lakes, which lies near the southern border at an altitude of 1400 ft., is 400 miles long, and from 18 to 70 miles broad, with an area of 13,200 square miles, and a greatest depth of 4500 ft.

(3) CLIMATE

Siberia has a typically continental climate with a great variation of temperature between summer and winter. The winter is long and very cold, but the snow is seldom deep, and in some parts, like Transbaikial, snow hardly falls at all; the winter winds as a rule are light, and owing to the consequent calms the intense cold is tolerable, and its effects on vegetation and human activities are comparatively unharmful.

Temperature.—The winter temperatures are much lower and the summer temperatures somewhat higher than might be expected. The mean annual temperature of practically the whole country is below 36° F., and of all except the extreme south below 32° F. The coldest month is January. The coldest part of the country is

the region between the Aldan and the Arctic Ocean, in which is situated Verkhoyansk, the coldest place in the world, which has a January mean of -60.7° F. and a July mean of 59.7° F. The extreme south has a July mean of over 71° F., and Minusinsk is said to have the pleasantest climate in Siberia.

Rainfall.—Precipitation is slight and occurs chiefly in summer. In the far north it is less than 8 inches in the year, but increases towards the south, reaching its maximum of 20 inches or more in the Amur region; while Kamchatka has an annual fall of 40 inches or more. On an average 50–55 per cent. of the annual amount falls during June, July, and August. Despite the abundance of great rivers, drought is not uncommon in many parts, although the frozen subsoil of most of Siberia and the gentle gradients of the plains make the drainage slow and give the country a wet appearance despite its scanty rainfall.

The appended table gives the temperature and precipitation of places in each of the Governments and territories of Eastern Siberia.

| | Temperature | | Precipitation | |
|----------------|--------------------|-------------------|-------------------|-------------------------|
| | Jan. Mean | July Mean | July—Aug. ins. | Annual Total ins. |
| Yeniseisk | -10.1° F. | 66.9° F. | 6.5 | 17.0 |
| Irkutsk | — 7.4 | 65.1 | 8.5 | 16.0 |
| Verkhne Udinsk | — 17.3 | 66.2 | 4.5 | 8.0 |
| Yakutsk | — 46.0 | 66.2 | 6.5 | 12.0 |
| Blagoveschensk | — 13.7 | 70.3 | 11.5 | 20.0 |
| Khabarovsk | — 13.2 | 69.4 | 12.5 | 22.0 |
| Vladivostok | — 4.8 | 69.0 | 6.0 | 15.0 |
| Petropavlovsk | — 13.8 (Feb.) | 58.3 (Aug.) | 6.5 | 48.0 |

(4) SANITARY CONDITIONS

The climate of Siberia is not unhealthy, despite its rigour, but frostbite and snow-blindness are naturally prevalent. Apart from these, however, many diseases due to bad conditions are found. Measles have a devastating effect, especially among the Koryaks and

Yukagirs; smallpox has caused a steady reduction in the numbers of the Yukagirs and Tungus, and tubercular diseases are prevalent. Other complaints are Siberian boil plague, a form of anthrax; goitre; syphilis; ophthalmia, which is very common; leprosy; and cholera, which is always to be found in Amur and Primorsk. The south-eastern parts of Siberia seem to be the least healthy, owing to their proximity to China, Korea and Japan.

In the polar and subpolar regions is found the curious phenomenon known as Arctic hysteria, which is probably accentuated by the long winter darkness. Hardships cause the spread of this hysteria, which sometimes afflicts whole villages, although settlers and exiles seldom suffer from it.

It is extremely difficult to combat disease in Siberia, owing to the totally inadequate medical service, the unhygienic conditions of the native huts, and the dirty and insanitary habits of the people.

(5) RACE AND LANGUAGE

Natives.—It is at present impossible to classify the natives of Eastern Siberia racially, as adequate data are wanting and the peoples are much mixed. Falling back on linguistic classification we find that these peoples are divisible into two groups, the Palaeo-Siberians and the Neo-Siberians. The Palaeo-Siberians, not only by their languages, but also by reason of their earlier migration to the extreme north, seem to be distinct from other peoples in Eastern Siberia. The Palaeo-Siberians comprise the Kamchadals, Koryaks, Chukchis, Yukagirs, Gilyaks, the Ostyaks of Yenisei, and a few Eskimo and Aleuts. The Neo-Siberians include the many groups of Tungus tribes, the (Turki) Yakuts and the (Mongol) Buryats, a few Samoyeds and several thousand Turko-Tatars. The Palaeo-Siberians (less than 30,000) still live mainly by hunting and fishing, to which some have added reindeer breeding. Their tiny groups of huts are found chiefly along the banks of the great rivers, although there are a few on the Pacific coast.

The Neo-Siberians number about 700,000. Scattered over Eastern Siberia are the Tungus, whose ancestors migrated from Manchuria, and who live much as do the Reindeer Chukchis. Another branch of the Tungus, the Goldi, in the Ussuri region, have acted as transmitters of Chinese culture to the natives on the lower Amur. A more numerous Neo-Siberian people are the Yakuts, who speak a Turki language but are racially much mixed. It is interesting to note that they are in many places absorbing the Russians, who adopt their language and customs. The largest and also the most advanced of the Neo-Siberian peoples is the Buryat tribe, who are horse and cattle breeders. They intermarry with the Russians and practise agriculture. A knowledge of reading and writing is common among them, and they have a higher percentage of literates than the Russians. A few hundred Samoyeds have crossed the Yenisei from Western Siberia, and the so-called Turko-Tatars from northern Mongolia are found in their thousands as herdsmen and agriculturists within the southern borders of the Irkutsk and Yeniseisk Governments.

Russians and Foreigners.—The European population of Eastern Siberia consists chiefly of Little and Great Russians, Poles, Lithuanians, Germans, and Jews. There is little or no race prejudice even among educated Russians and Poles, and in the south, Kirghis, Turko-Tatars, Buryats and even Amur Tungus marry Russians and often absorb them in customs and language. Among the Europeans the prevailing language is Great Russian spoken with the addition of many Polish words.

The yellow races are represented by a certain number of Chinese, Koreans, and Japanese.

(6) POPULATION

Distribution

Natives.—The population of E. Siberia is estimated at 4,238,500. The natives, who number about 700,000, live for the most part east of a line drawn northward from Irkutsk to the Arctic Ocean. Of the 30,000 Palaeo-

Siberians all except the Ostyaks of the Yenisei and the Gilyaks at the mouth of the Amur live in the north-eastern corner of the country. Among the Neo-Siberians, certain of the Tungus tribes (the total number being about 80,000) form a genuinely nomadic group. The Yakuts number nearly a quarter of a million, and are increasing, as are also the Buryats, who at present approximate to 300,000, and dwell round Lake Baikal.

The smaller tribes are doomed to extinction; this is due partly to the encroachments of Russian and American traders, and also to the rapid spread of disease and periodic epidemics.

Russians and Foreigners.—The Russian population of Eastern Siberia is about 3,500,000, which makes a density for the whole country of less than one Russian per square mile. The density in particular provinces, however, varies between one to nearly 100 square miles in Yakutsk and about three to the square mile in Transbaikial. In the latter territory the Russians dwell chiefly in the region between the Rivers Shilka and Argun, while in Yeniseisk and Irkutsk Governments they are chiefly found in the country bordering on the Trans-Siberian Railway. Political and criminal exiles formed in 1897 5·21 per cent. of the population of the whole of Siberia.

The chief foreigners to be found in Eastern Siberia belong to the yellow races—Chinese, Japanese, and Koreans. All these are found in Primorsk, and the Chinese and Japanese in Transbaikial and the territories bordering on the Amur.

The Chinese may be estimated at about 200,000, but any exact figures are impossible, as their numbers have fluctuated considerably, and the Russians in 1910 began a policy of exclusion which is bound in time to have a considerable effect. The Chinese are now excluded from all Government works, and legislation was contemplated which would have removed them from mines, forests, and shipping.

The Japanese are found in the territories bordering on the Amur. Their numbers are growing, but no trustworthy statistics are available. A partial census of the

Koreans (1906-7) seems to show that there are not less than 50,000 in Primorsk, while there are also a good many seasonal immigrants.

Towns

The urban population is estimated at about 12½ per cent. of the whole, and of late years the building of the Trans-Siberian railway has caused the expansion of many of the large towns. The most populous city of Eastern Siberia is Irkutsk, which in 1913 had a population of 129,700. Other important towns are Vladivostok (91,464 in 1911); Chita, the capital of Transbaikalia (79,200 in 1913); Krasnoyarsk, the largest town of Yeniseisk (73,500 in 1910); Blagoveschensk, capital of the Amur *oblast* (62,500 in 1913); Khabarovsk, on the Amur (51,300 in 1913); Yakutsk (10,800 in 1913); and Petropavlovsk, the chief town of Kamchatka (1500 in 1913).

Movement

The low birth-rate among Russians resident in Siberia, together with the high rate of infant mortality, results in the very small natural increase of 7 or 8 per 1000 annually. The population of Eastern Siberia has doubled since 1897, but this is chiefly due to immigration, which is very considerable. During the years 1911 and 1912 immigrants into Siberia numbered 485,000, while from 1902 to 1912 the immigrants into Primorsk alone averaged about 16,000 a year, but from both these figures a considerable percentage should be deducted for returning immigrants. The building of the Amur railway has since 1911 attracted a large number of settlers to these districts, while in years of bad harvest, etc., there is a good deal of migration from Western to Eastern Siberia.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1581 Yermak crosses the Urals. Beginning of Russian expansion in Siberia.
- 1638 Russians reach the Pacific coast.
- 1644 Poyarkov arrives at the mouth of the Amur.
- 1689 Treaty of Nertchinsk. Russian advance down the Amur checked by China.
- 1696 Russians arrive in Kamchatka.
- 1848 Renewal of Russian activity on the Amur.
- 1858 Treaty of Aigun. Russia gains the region east of the Ussuri river, and the control of the Amur.
- 1860 Treaty of Peking. Ussuri region defined.
- 1867 Alaska bought by the United States.
- 1896 Agreement between Russia and China for the construction of railway across Manchuria.
- 1898 Trans-Siberian Railway completed to Irkutsk.
- 1900 Massacre of Chinese at Blagoveschensk.
- 1904-5 Russo-Japanese War. Treaty of Portsmouth (U.S.A.).
- 1911 (Nov.) Mongolia declares its independence of China.
- 1913 (Nov. 5) Agreement of Peking between Russia and China concerning the status of Mongolia.

(A) RUSSIAN ADVANCE

The history of the Russian occupation of Eastern Siberia is conveniently divisible into its domestic and foreign aspects. Under the former are considered the successive waves of peoples which entered the country from European Russia, and under the latter their contact with foreign nations.

The Russian advance on its domestic side falls naturally into three periods, in which the most prominent features are the coming of (i) the hunters and adventurers, (ii) the exiles both political and criminal, and (iii) the colonists.

(i) *Hunters, traders, and Cossacks, 1600–1750.*

There seems little doubt that, so early as the eleventh century, Novgorod merchants traded for furs across the Ural Mountains as far as Tobolsk. Settlements were even made on the banks of the River Taz, the western boundary of Eastern Siberia. By the fourteenth century colonists are said to have followed in the wake of Russian, Dutch, and English traders on the Yenisei River and to have pushed south and east. But they were a mere drop in the ocean; the real beginning of the Russian penetration of this vast continent was perhaps due to that fever of discovery which seized Europe in the fifteenth and sixteenth centuries. For the search for spices in the East and precious metals in the West, Russia substituted the search for furs in Siberia and subsequently that for gold and silver. It was in 1581 that Yermak crossed the Urals to conquer, for the merchant family of the Stroganovs, the rich fur-yielding district of Yugra, and to collect tribute from the natives. This was the initiation of that movement of hunters and adventurers which led to the continent being crossed in less than sixty years.

The hydrographic system of Siberia, whose two great rivers, each formed by two tributaries, flow northwards, enabled the Russians, by descending the one and ascending the other, and linking up the systems by short portages, to cross rapidly the thousands of miles of trackless forest and swampy lands. Little opposition came from the majority of the native tribes, who were weak and sparse in number and could offer but ineffectual resistance to the fire-arms of the Russians. Thus by barter and force the northern part of the great continent of Asia fell an easy conquest to the Russian invader.

So rapid was the advance that the town of Yeniseisk, near the western border of Eastern Siberia, was founded in 1618, the River Lena crossed in 1628, an *ostrog* or blockhouse built in 1632 from which the town of Yakutsk rose, and the Pacific coast near Okhotsk

reached in 1636. By 1644 Poyarkov had descended the Amur to its mouth; and by 1648 Dejnev had doubled East Cape into the straits navigated eighty years later by Bering.

First came the hunters and traders, next the adventurers, lured by fabulous tales of precious metals, valuable furs, and silks from China. *Ostrogs*, generally stockaded compounds enclosing a few dwellings, were built for defence at strategic points, to develop later into well-known towns. Voivodes (*voyevod*) or military chiefs with absolute authority were established at central points. "From the sufferings of the Cossacks" at their hands "we may judge of the treatment of the natives¹." The Cossacks acted not only in their military capacity but also as collectors of tribute from the natives. The cruelty and lawlessness of these wild Russian soldiers and adventurers increased with their advance eastward, and for many generations the memory of these horrors remained with the natives.

The evil results on the country generally are illustrated by the events which happened on the Amur during the remarkable expeditions of Poyarkov and Khabarov between 1643 and 1652. While paying tribute to their perseverance, Ravenstein² deplors the fact that these enterprises were left to private adventurers who sought their own ends:

The natives appear to have been exposed to all sorts of extortion; tribute was levied to an unlimited extent without any commensurate good being conferred upon the natives. No settlements of peasants or tillers of the soil were founded; the resources of the country were soon exhausted by perpetual foraging expeditions of Russian adventurers. When the Russians first arrived on the Amur, the natives cultivated fields and kept cattle. Ten years afterwards these fields had become deserts; and a country which formerly exported grain could not even support its own reduced population. There is no doubt that, had these expeditions been carried out upon a

¹ Vladimir, *Russia on the Pacific*, p. 82.

² E. G. Ravenstein, *The Russians on the Amur*, p. 25.

more sensible plan, Russia might have enjoyed these resources of the Amur two centuries before our times.

While on the whole the natives were easily subdued, the larger tribes made some resistance. The Tungus on the Tunguska River, in the present Government of Yeniseisk, held out against the invaders from 1607 to 1610. Also, in their attempt to make secure the portage between the upper tributaries of the Yenisei and the Lena, the Cossacks came into collision with the great Mongol tribe of Buryats, who were not subdued until 1648. As a result of this, Irkutsk, in this region, to-day the most populous city of Siberia, was not founded until 1651. Other tribes that resisted were the Chukchis in the far north-eastern peninsula, who finally obliged the Russians to leave them virtually independent; while neighbours of this tribe, the Koryaks, suffered from Cossack brutality and frustrated Russian attempts to exact tribute until 1764, when they ultimately recognised the supremacy of Russia.

The Russian advance down the Amur having been checked by the Chinese in 1689 (Treaty of Nertchinsk), the flow of settlers was diverted to the north-east; and seven years later an expedition succeeded in reaching the Kamchatkan peninsula. From this time settlements sprang up in this far-distant land; and a few years later, in the first half of the eighteenth century, Russian ships began to appear in the northern Pacific.

Russian exploration did not even stop at Kamchatka but continued on the other side of the Pacific. In 1741 the Alaskan coast was visited by Bering and Chirikov, and settlements were made on the seaboard; but in 1867, six years after the charter of the Russian-American Co. had expired, Alaska was purchased by the United States for \$7,200,000.

(ii) *Exiles, political and criminal, 1750-1900*

It is said that deportation to Siberia began after the murder of the Tsarevich Dmitri in 1591. In 1648 occurs the first mention of "exile" in legislation.

At first the system was used to get rid of criminals who had been mutilated. Fifty years later it was thought desirable to settle the new territory by dispatching criminals to Siberia, but most of these went no further than just across the Urals. From about 1762 serfs were allowed to be deported by their masters; and the development of the mining industry afforded convenient opportunities for the disposal of convicts. In 1763 capital punishment was abolished in Russia, and perpetual banishment to Siberia with hard labour substituted. Indeed, during the eighteenth and nineteenth centuries, deportation as a punishment was extended to include an ever-growing category of crimes and misdemeanours, resulting in the banishment of criminals with sentences of hard labour and also those undergoing shorter terms of imprisonment. Political exiles were sentenced sometimes by legal trial, but frequently by administrative councils or even by individual governors without public trial. In addition to these categories, refractory and otherwise undesirable members of the village communities were exiled by the *mirs* (folk-moots); these numbered more than 50 per cent. of the deportations for the years 1867 to 1876. Finally, religious dissenters were added to the classes banished to Siberia.

From 1823 to 1898, 187,000 criminals and 513,000 political exiles, with 216,000 followers, crossed to Siberia. In 1902 (by a *ukase* of 1900) exile to Siberia was abolished, but in 1904 it was restored as a punishment for political offenders, and in 1906 as many as 45,000 political exiles alone were deported to Siberia. During the last 50 years about 20,000 per annum have been exiled, but in the year 1898 the figure actually reached 298,574. In the course of the last hundred years the most notable deportations have been those of the Decembrists to Chita, many of whom were nobles who shared in the military revolt of December 14, 1825, on the accession of Nicholas I; the Polish patriots who revolted in 1863, to the number of 15,000–20,000; the Russian revolutionaries and Polish sympathisers in 1905 and 1906;

and finally in 1914 such diverse elements as the Austrian, German, and Turkish prisoners, an unusual number of political exiles and prominent socialists of the Duma, members of the Finnish Diet, Poles and Ruthenians from Galicia, and Polish refugees from Russian Poland.

Of the religious exiles banished to Siberia, the majority were Raskolniks, dissenters whose spiritual ancestors objected to the changes introduced into the system and ritual of the Russian church in the seventeenth century; these are said to number 10 per cent. of the Russian population of the Russian empire. The Don Cossacks in Transbaikalia and on the Amur and Ussuri rivers are nearly all Raskolniks. They are industrious and abstemious, and their villages make a pleasing contrast to those of their neighbours. Other sects which have suffered banishment include the Shtundists, Dukhobors and Skoptsi, the last having been deported at the beginning of the nineteenth century, and since 1838 exclusively to the Yakutsk territory.

The larger number of exiles has always been centred in Western Siberia, but since the construction of the railway Irkutsk and Transbaikalia have claimed their share. Since 1870 the Government has done its best to keep apart the criminal and the peaceful colonists. From that date the convicts were confined more and more to the upper Lena basin and the island of Sakhalin, while the political exiles have been mainly detained in western and central Siberia. A few groups were isolated in the extremely cold regions of the northern Yakutsk territory.

A great menace to life has been added by the presence of escaped convicts (*brodyagi*) throughout Siberia. It is common knowledge that about one-third of those transported have escaped all control, and have robbed and terrorised. On the other hand, the political exiles who settle in the towns add much by interest, example, and teaching to the enlightenment of the community and the development of the country. Lately the authorities, embarrassed by the friendly reception in Siberia of these

political exiles, have attempted to discredit them by including criminals in the same category.

The merits of the exile system were loudly proclaimed in the early nineteenth century; but those who extolled it did not foresee the inevitable results of trying to develop a new country with the most undesirable elements, whether criminals or ne'er-do-wells. It was asserted that the system would relieve the mother country of a dangerous element, give the convicts a fresh start in a new environment, and help the development of a new continent. Unfortunately the misery, hardships, and cruelty suffered by the exiles were concealed; and in their place only rosy reports of a land of plenty, happy homes, and the construction of fine public works reached the public ear in Europe. It was said that the learned were astounded at the almost patriarchally long lives of the exiles, not suspecting that these existed only in the official lists of the Siberian authorities, who prolonged the lives of thousands of exiles on paper in order to put the money received from the Government for their support into their own pockets.

In the nineteenth century attempts were made to lessen the terrible hardships and loss of life due to the driving of large herds of exiles across the frontier without adequate arrangements; and late in the century their dispatch by ships to Sakhalin did away with thousands of miles of forced tramping for exiles bound thither. Finally the construction of the Trans-Siberian Railway effected the greatest reform and ultimately proved a death-blow to the system.

According to the report of the General Director of Prisons, A. P. Salaman (1896?),

the number of exiles and their relatives living at the present moment in Siberia, amounts in round figures to some 300,000, of whom about 100,000 are *brodyagi* (runaway prisoners), 100,000 "proletarians," 70,000 labourers without land, 30,000 settled labourers, and only 4500 giving reason for hoping that they will become assimilated with the older population¹.

¹ J. Stadling, *Through Siberia*, p. 266.

(iii) *The Colonists, 1861-1914*

The settling of free peasants in Eastern Siberia may go back even to the fourteenth century, but the beginning of a continuous occupation dates from the seventeenth. The early Government essays in colonization, made for the purpose of establishing the security of newly-won territories, were followed by two centuries of official discouragement. It was not until the latter half of the nineteenth century that the Government revived their former policy; and colonization did not attain considerable dimensions before the beginning of the twentieth century. It should be remembered that previous to 1861, when serfdom was abolished, the Russian peasant could not lawfully leave his native soil.

Save for the unrecorded and unauthorized stray groups of settlers, filtering throughout the centuries into remote parts of Siberia, the earliest colonists were those sent to Albazin on the Amur in 1671-72 to till the soil and to save outposts such as this from surrender to the Chinese as a result of starvation. From the descendants of the Don Cossacks settled in Transbaikai three *sotnias* were detached in 1857 to establish villages along the banks of the Amur in order to secure the new boundary. It is said that, in their struggle with the strange and hard conditions, they lost more than they would have done in a campaign. By the end of 1858, 20,000 persons of both sexes had been settled on the river banks. The following year a similar plan was adopted in the Ussuri valley, where the best lands were again given to the Cossacks so as to ensure the new boundary (Treaty of Aigun, 1858). These and other migrations took place within Eastern Siberia; latterly large numbers of immigrants to the Ussuri plain have come from Western Siberia. Government experiments have been made with the view of encouraging voluntary settlers from Russia in the Ussuri district, but they cannot be said to have been successful.

It is said that during the first three hundred years of the Russian occupation of Siberia only 3,000,000

settlers entered Siberia. Of these half a million arrived between the years 1870 and 1890. From 1896 to 1905 the number was 1,370,000, indicating the effect of the new Trans-Siberian Railway. The numbers increased rapidly after the stagnation caused by the Russo-Japanese War, reaching the maximum for any one year of 758,812 in 1908, and totalling for the years 1906-1913 nearly $3\frac{1}{2}$ millions. From these must be deducted the returning immigrants, who in 1911 numbered 30 per cent., decreasing in 1913 to 11 per cent. Since the year 1896, and particularly since the Russo-Japanese War, the Government has given generous encouragement to settlers by loans on easy terms, taxation and military service relief, land surveys, transport improvements, and facilities for the purchase of agricultural implements. In 1896 the Government allocated 1,000,000 roubles for colonization, in 1905, 2,900,000 roubles, and in 1914 the large sum of 30,000,000 roubles.

At the same time it should be noted that the year 1908 remains the high-water mark of immigration. The later diminution is due to two or three causes, namely, the decrease in the supply of free and easily accessible land, the unfavourable farming years in Siberia, and improvements in European Russia. During the five years 1909-13 peasant banks in emigration districts have enabled 10,600 square miles of land in European Russia to pass into the peasants' own hands.

The causes which determine the Russian peasants to emigrate are, as with most migrants of the present age, economic. No doubt the opening up of the great unknown land by the Trans-Siberian Railway has brought tales of fabulous resources of gold and silver, of broad acres, of fortunes quickly made and spent; no doubt relatives and friends gone before add temptation to the longing for change, but in the main the Russian peasant goes, not because of these or to avoid political or religious restrictions, but because he has not enough land to support his family. Unless he happens to live near a town or factory where he can

hire out his labour during the winter months, he finds it hard to provide for his family and impossible to pay the taxes as well. In Siberia, on the other hand, he has the advantage of sufficient land to occupy him all his working days. It is officially reported that an ordinary settler's farm has an average of more than 100 acres, or between eight and nine times that of the European Russian peasant.

Colonists have settled mostly along the railway in the Governments of Yeniseisk and Irkutsk, where it passes through the black-earth belt. The last few years have seen an increase of immigration to these two Governments at the expense of Western Siberia, where the best lands had already been taken. Transbaikal, the home of the Buryats and the Don Cossacks, has but a small proportion of settlers, for colonists mostly continue their journey to the Amur territory. Transbaikal is regarded as the most beautiful province in Siberia, but the stigma of the horrible treatment of the exiles in the mines still clings to it. The Amur territory has been much favoured since the Russo-Japanese War, and the construction of the Amur railway has added further impetus to settlement there. Perhaps the presence of gold and the favouring condition of warm summers for agriculture have been factors in the attraction. Primorsk received from 1859 to 1913 about 1½ million Russians in addition to the first settlements of Cossacks. Government encouragement was given as early as 1882. Most of the settlers are found along the banks of the rivers Ussuri, Suifun, etc.; but the Little Russians, who are in the majority, have found the clearing of the later allotments (which lie on the hill-sides away from the river) difficult and disheartening work. In 1913 nearly 35 per cent. of the number of immigrants for that year returned from the Ussuri region. Neither in Kamchatka, which is unsuitable for agriculture, nor in Yakutsk are there many Russian settlers.

(B) FOREIGN RELATIONS

(i) *Relations with China*

The Russians in their expansion over Siberia had generally kept north of the 50th parallel, avoiding the more formidable tribes, the Tatars in the west and the Buryats of Transbaikial. Thus, beyond Lake Baikal they were forced towards the north-east. Reports, however, reached them in the Yakutsk territory of a great river to the south and a fertile land; and they hastened from the Aldan and the Lena to the lower and middle Amur. In the attempt to approach the latter more directly from Europe they came into collision for several years with the Buryats in Transbaikial and began there the establishment of a base from which in the late seventeenth century they tried, and in the middle of the nineteenth century were able, to acquire control of the Amur.

Of the natives encountered on that great river many, perhaps all but a few Gilyaks at the mouth of the river, were paying tribute to the Manchurian authorities. In fact, in the Treaty of Nertchinsk (1689), the Russians accepted the Chinese boundary as running roughly about 200 miles north of the Amur River along the crest of the Stanovoi mountains and ending at the Okhotsk coast near the Ud River. Save in their struggle on the Amur the Russians can scarcely be said to have trespassed in their early expansion on territory to which China had any serious claim.

The collection of tribute and the oppression of the natives on the Amur from 1643 onwards had been possible because of the conflict at that time between the Chinese and the Manchus; but, after the establishment of the Manchu dynasty at Peking in 1644, interest was awakened in the out-lying portions of the Empire, especially the outskirts of Manchuria. Manchus had resisted Khabarov on the Amur so early as 1652. In the spring of 1655 a Manchu army of 10,000 attacked the invaders on the river after the latter had assailed

the Chinese up the Sungari in Manchuria itself. These filibustering raids of the Cossacks in the very home of the Manchu dynasty of China proved the last straw. It has been said that, had the Russians then settled down on the Amur and cultivated the soil, the Chinese authorities might have tolerated them, as they were not greatly interested in the Amur River at the time. By 1661 the regular Russian forces had been withdrawn from the Amur and were concentrated at Nertchinsk (at the junction of the rivulet Nertcha with the Shilka) after some local opposition on the part of the Buryats. An *ostrog* had been built here in 1654 and a *voyevod* appointed two years later. Bands of adventurers and outlaws from the Lena district, drawn by exaggerated reports, continued to make trouble on the great river; and, in 1665, the leader of one of these actually rebuilt the fort at Albazin. Such were his activities that the Chinese Government were aroused and in 1670 sent a letter to Nertchinsk complaining of the Russian encroachments, particularly at Albazin. By 1672 the leader of these bands had been pardoned and recognised by the Russian Government. Three years later the Moscow Government, realising the true state of affairs and fearing difficulties with China, especially regarding the tribute collected from natives who were considered by the Chinese as tributary to them, sent an envoy to Peking. On his return journey the envoy

sent word to the Russians at Albazin, both from Tsitsikar and Nerchinsk, not any longer to navigate the lower Amur and the Dzeya (Zeya) nor to collect tribute from the Tunguzians (Tungus) dwelling along the latter¹.

His instructions, however, were disregarded; and further, what had been merely Russian stations for collection of tribute on the river were converted into actual settlements by 1681. Officials were appointed, forts were to be strengthened, and tribute collected. By the next year these settlements extended to the Amgun River, a left-bank tributary near the mouth of the Amur. Albazin

¹ Ravenstein, *op. cit.* p. 41.

prospered, and already 2700 acres were under cultivation. The patience of the Chinese being exhausted, they now took action; and by the end of 1683 all Russian settlements on the Amur, save Albazin, were destroyed. The latter was besieged in 1685 and again in the following year by large Chinese forces, but negotiations at Peking caused the raising of the siege on August 30th, 1687. In 1686, a Russian envoy, Veniukov, had arrived in Peking to endeavour to obtain an agreement about the frontier. He brought back with him a letter for the two Tsars of Russia, the first paragraph of which gives the burden of its contents. It is dated November 20th, 1686, and begins:

The officers to whom I have entrusted the supervision of the sable hunt have frequently complained of the injury which the people of Siberia (Sokha) do to our hunters on the Amur, and particularly to the Ducheri. My subjects have never provoked yours nor done them any injury; yet the people at Albazin, armed with cannons, guns, and other fire-arms, have frequently attacked my people, who had no fire-arms, and were peaceably hunting¹.

In the negotiations at Nertchinsk, which followed the preliminaries, the Chinese had the advantage of a large body of well-armed troops and of able diplomats in the persons of two Jesuit Fathers, well educated and well informed, from the Court of the great Emperor, K'ang-hsi. The Russian envoy Golovin was weak, unskilled, and ignorant of the country. The deciding factor for the Russians was the rumour of the desertion of 3000 Buryats to the Chinese. On the 27th of August (O. S.), 1689, the Treaty of Nertchinsk was signed, giving to China the river Amur with the large area north of it and south of the crest of the Stanovoi range as far as the Pacific, the boundary ending near the River Ud. Westwards the River Argun was to be the frontier line. This signal defeat for Russian diplomacy occurred just before the accession of Peter the Great, when the Russian Government had been for many years weak and distracted. By this agreement sources of tribute were cut

¹ Ravenstein, *op. cit.* pp. 54-5.

off, and, what was more serious still, communications with the Pacific coast settlements were rendered long, arduous, and uncertain. The journey from Irkutsk to Kamchatka took many months; and the latter part had now to be done by pack animals down the steep slopes of the coastal mountains to the Okhotsk sea and thence by ship.

The fort of Albazin was demolished and the treaty fairly well kept by the Russians. The Chinese made annual inspections of the river boundary; and, save for Russian adventurers, escaped convicts, and scientific expeditions, the Russians did not trespass on the Lower Amur.

These disadvantages were dwelt upon by writers during the eighteenth century and, together with the marine activity of the Russians in the North Pacific, led to an awakened interest in the great river Amur during the early nineteenth century. In 1842 Great Britain obtained from China the opening of five treaty ports. Russia, hitherto in the privileged position of being the only European nation having treaties of commerce with China, saw her overland trade with Peking diminishing, and began to fear Great Britain's arrival on the Pacific as likely to bar her outlet there. The renewal of the Russian advance was assured by the appointment in 1847 of Count Muraviev, who was already keenly interested in the country, as Governor-General of Eastern Siberia. An expedition sent by him down the Amur was lost, but in 1849 explorations of the mouth of the Amur were made from the Pacific; and in 1850 Nikolaevsk and three years later Mariinsk on the river and Alexandrovsk on De Castries Bay in the Straits of Tartary were established.

Thus, in defiance of the Treaty of Nertchinsk, the Russians had begun the occupation of the Amur. A modern writer¹ contends that the treaty left the boundaries of all but the Upper Amur uncertain, and that the Chinese claim to the territory north of the river was merely nominal. The former contention does

¹ Vladimir, *op. cit.*

not seem to be valid, for the first article of the treaty defines the boundary to the eastern ocean as clearly as could be done in the circumstances, only leaving the exact line immediately abutting on the Pacific coast for delimitation with reference to the river Ud. Moreover, boundary stones were duly placed and the river boundaries were annually inspected. But the Chinese made little more effort to assure their sovereignty than before the treaty. They collected tribute from the natives on the river, including valuable sable skins from those on the northern banks; and in the plains of the Zeya, a left-bank tributary of the Amur, there were "large settlements of Chinese Manchus." Chinese traders visited the natives and are reported, with some show of truth, to have been less welcome than the easier Russian merchants. Certainly China did not occupy the country and extend her administration as a European nation would have done in these days.

The Crimean War in 1854 gave a further impetus to Russian activity. The blocking of all outlet from the Black Sea necessitated another line of communication to defend the Pacific coast settlements. During the years 1854 and 1855 the allied attacks on the Pacific Coast, although demanding all Muraviev's alertness, were uniformly unsuccessful. In the same year Muraviev descended the Amur with a powerful military expedition to convey arms and provisions to the Russian ships and settlements on the Pacific coast. It is true that he asked permission of local Chinese officials, but he did not and could not wait for refusal from Peking. A second military expedition of Muraviev's in 1856 was objected to by the Chinese, but without result. Until that year all settlements were confined to the lower Amur, but during 1856 several more were made on the middle Amur, thus linking the upper and lower portions of the river. In 1857 a brigade of infantry and a regiment of cavalry descended the Amur, forming numerous stations and conveying provisions for the possessions of the Russian-American Company. In 1857 Admiral Putiatin, the new Russian Minister to Peking,

failed to obtain an agreement about the Amur boundaries. But Russia was already confident; and in the same year the territories of the Amur, having been separated from the Government of Irkutsk, were combined with Kamchatka and the coastal region of the Okhotsk sea, thus constituting the Maritime Province of Eastern Siberia, dependent upon Muraviev as Governor-General of Eastern Siberia. A year later the Amur territory was cut off and established as a separate province. In 1858 the position as between Russia and China was the reverse of that of 1689. The Russian Government was now strong, and the population of the near base in Transbaikal was numerous. On the other hand the Manchu dynasty had lost its great military prestige of the seventeenth century and its interest in Manchuria. The immediate cause of its weakness was due to the struggle with the Anglo-French expedition to Peking, and the T'ai-p'ing rebellion.

China's answers to Muraviev fluctuated with the fortunes of her war against the French and English. Muraviev took skilful advantage of her troubles, and with the final success of the Allies obtained her agreement to the Treaty of Aigun (May 16, 1858), which gave to Russia the left bank of the Amur as far as the Ussuri and both banks from the Ussuri to the mouth of the Amur. Indeed, by 1858 Muraviev had practically settled the left bank of the river Amur; and it only remained for diplomacy to recognise the fact. To make the new territory secure, Cossacks were sent to settle along the right bank of the River Ussuri. Neither here nor in Transbaikal did they prove good colonists, for their very duties conflicted with this rôle. The temporary check to the Anglo-French expedition on the Pei-ho in June, 1859, encouraged the Chinese to disavow the Treaty of Aigun; but the final success of the Allies favoured Russia's aims, and the Treaty of Peking, signed on November 14, 1860, granted to Russia very favourable terms. It gave the latter the whole of the coastal area east of the Ussuri River, in other words, the maritime border of Manchuria as far as the Korean

boundary. Nearly four months before the treaty was signed the site of Vladivostok had been occupied, and twelve years later the Russian naval base in the Pacific was moved thither from Nikolaevsk. Included in the treaty was an agreement for free commercial intercourse without customs dues between the two Empires along the whole extent of the frontier, in a zone of 50 versts on either side. This agreement was extended in 1881 for thirty years.

No further diplomatic incident of importance occurred between China and Russia until the end of the nineteenth century. In 1894 Russia objected to Japan retaining the footing in the Liaotung peninsula which she had gained in the Chino-Japanese War, and, posing as China's friend against "plotting Japan and Britain," she in 1896 persuaded the Government at Peking to agree to the construction of the Chinese Eastern Railway across Manchuria in order to link up the Transbaikal railway with the Ussuri railway to Vladivostok.

As this gave rights of occupation in the strip along the railway, it was the beginning of the Russian penetration of Manchuria. The Boxer riot at Peking aroused great anxiety in Russian circles in the east; and the massacre at Blagoveschensk on the Amur in Manchuria in 1900, when some 5000 Chinese men, women, and children were drowned in the river, did not mend matters.

This massacre and the cruelties which followed it in Northern Manchuria have remained a vivid memory with the Chinese, and, added to the anti-Chinese labour legislation of Governor-General Gondatti in 1910, excluding Chinese labour from Government work, has tended to drive the Chinese into the hands of the Japanese.

(ii) *Relations with Japan*

Friction with China gave place early in the present century to collision with Japan. The latter had had cause to view with suspicion the Russian coaling

station at Port Hamilton on the Korean coast (1857). A report was current some years later that Russia had demanded the cession of the twin islands of Tsushima. Her advance in Manchuria, followed by concessions in northern Korea, led to the outbreak of war with Japan in 1904.

The results of the Russo-Japanese War, far from causing Russia to withdraw from the Far East or to take less interest in it, led her to double her efforts to secure what had been saved. Two great undertakings were begun, one of which was the fortification of strategic points; the other was the building of the long-contemplated Amur railway, linking the Transbaikal railway with that of the Ussuri (from Khabarovsk to Vladivostok), completed in 1897. The Japanese in Korea were separated from Russian territory merely by the river Tyumen, and might without warning develop a threat against Vladivostok. As they were also present in southern Sakhalin, they might prove a danger to the Primorsk coast, although by the Treaty of Portsmouth (U.S.A.), 1905, it was agreed neither to fortify the island nor to impede by military measures the navigation of the Straits of Tartary. In pursuance of their policy the Russians have converted Vladivostok into a fortress of the first class and fortified Nikolaevsk near the mouth of the Amur and other smaller places. The Chinese Eastern Railway being the only through railroad to Vladivostok, it was obvious that, if this were cut, all Primorsk would be at the mercy of the enemy; hence the Amur railway was built. The Treaty of Portsmouth gave China the option of purchasing this railway at the end of twenty-five years; and neither Russia nor Japan has the right to transport troops over it. Since the Treaty of Portsmouth was signed the two Powers have tended towards a better mutual understanding. In 1907 the fisheries agreement foreshadowed in the treaty was signed; it granted considerable facilities to Japanese fishermen along the Russian Pacific coast. In 1916 a treaty was signed between Russia and Japan whereby the latter was to take over the Changchun-

Harbin portion of the Chinese Eastern Railway (147 miles) passing through the rich soya bean district of Kirin. Russia also agreed to waive customs dues on Japanese imports of matches, sugar, and fish, but placed an embargo on the import of luxuries to Russia *via* Siberia.

(iii) *Relations with Mongolia*

Russia's commercial relations with Mongolia have brought her into touch both with this state and her suzerain China. Russian traders have been wont, especially since about 1860, to ascend the upper waters of the Yenisei and cross the border into the Uriankhai district of Mongolia. They have been well received by the Mongols, for they brought with them attractive articles of barter and were much easier to deal with than the supercilious and close-fisted Chinese. Indeed the Russians have intermarried with the Mongols, a practice repellent to the Chinese. Trading, gold mining, lake fishing and agriculture have attracted the Russians, including Turko-Tatar and Buryat subjects of Russia. Once a year the Russian *nachalnik* visits these colonies and in the court-house disposes of differences between the settlers. Scientific expeditions have penetrated into the country, and Russia and Mongolia were on friendly terms when the revolution which displaced the Manchu dynasty broke out in China (October, 1911). The Mongols, rendered hostile to their rulers by tyrannical Chinese officials, had tried to get redress from Peking, and, failing this, had sent a deputation to St. Petersburg in August, 1911. Recalling the time when they had had their own rulers, before they were attacked and defeated by the Manchus, they declared in November, 1911, that their allegiance ceased with the passing of the Manchu dynasty. In the disputes and negotiations which followed Mongolia relied on Russia for aid. That Power was able to bring some pressure to bear on the Chinese because the treaty of commerce (1881) fell due for renewal in 1911; but she maintained a correct attitude, only stipulating that her

services were at the disposal of China to bring about reconciliation, on condition that Mongolia should enjoy internal autonomy, under the suzerainty of China with regard to external affairs.

These conditions, along with the exclusion of Chinese colonization in Mongolia, were embodied in a protocol dated at Urga, November 3, 1912. No agreement, however, was arrived at with the Chinese Empire; and for a year Russian efforts for a satisfactory agreement were unsuccessful. Mongolia was disappointed at Russia's willingness to admit China's suzerainty; and China appears to have wanted to save her face. Ultimately on Oct. 23/Nov. 5, 1913, the Agreement of Peking was signed on the basis of the Urga protocol.

It would appear that Russia and China agreed on January 1, 1912, to terminate the provision by which a free zone of 50 versts on either side of the boundary was open to trade without duties; but the effect upon Mongolia was not at first apparent. The Russians export their goods to Mongolia free of duty, while the Mongols are only allowed to export duty-free to Russia native products such as animals, skins, etc., but not silks, tea, and Chinese products. The Mongols show some feeling about this, and have further pressed for a definite assurance that the Uriankhai district is included within the boundary of Outer Mongolia.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

(i) *Russians*. The official and educated classes in Siberia belong to the Orthodox Russian Church; in fact, it was a government regulation that officials, except those who belong to one of the other acknowledged religions, must receive the Communion once a year, although by connivance with the priest this could be avoided. Orthodoxy cannot be said to have triumphed in Siberia, notwithstanding the imposing cathedrals and towering village churches and the ubiquity of the priests and monks. One writer has said that "the great majority of Siberiaks, though officially classed as 'Orthodox,' either have leanings towards some Christian sect of Russian origin, or are frankly irreligious, or—and this is not the least frequent case—are what might be called 'Christian Shamanists'".

In the official estimate of 1912, 89·97 per cent. of the population of Siberia were claimed as Orthodox, but the value of this figure, if any, is rather as an indication of the number of Russians.

The non-Russian European population is as follows: 0·6 per cent. are Roman Catholics, that is, Poles and Lithuanians; 0·28 per cent. are Protestants, that is, Finns, Germans, and Letts; and 0·6 per cent. are Jewish. Besides these, 2·2 per cent. are Mohammedans, the majority of whom are Turko-Tatars. In Siberia all these forms of religion are recognised and the sects are permitted to practise their own worship; for in 1905 the Russian revolution wrung religious toleration from the Government.

The Russian sects include Raskolniks, Skoptsi, Shtundists, Dukhobors and others less well-known.

¹ M. A. Czaplicka, *My Siberian Year*, pp. 187–8.

Most of the Russian convicts and many of the peasants in Siberia are on no higher plane of mentality than the native; and they seek the aid of the Shaman rather than the priest, who is in their opinion less successful in healing diseases, driving away evil spirits, and predicting coming events.

A few years ago there were nine Orthodox missions in Siberia with 300 workers; and the country has had a few, but very few, great missionaries, for the Russian Church does not favour proselytism.

(ii) *Natives*. It may be said that the ancestors of the 700,000 natives of Eastern Siberia were at the time of the Russian invasion all Shamanists. Shamanism varies with the different tribes, but in general consists in a belief in the existence of spirits good and bad, especially those of ancestors, and in the power of the Shaman or medicine man to exorcise and propitiate them. The largest tribe, the Mongol Buryats, were converted to Buddhism in 1727, but the majority still cling to the old Shaman beliefs beneath the Buddhist exterior. Indeed, the portion of the tribe dwelling to the west of Lake Baikal is largely Shamanist by profession, save where the men have married Russian women and become nominally Christians. The next largest tribe, the Yakuts, together with many of the smaller peoples, such as the Kamchadals and the Yenisei Ostyaks, are also nominally Christians but really Shamanists. The Yakuts are indeed married and buried by Orthodox ritual, but they have greater faith in the Shaman than in the Russian priest. In some cases the Russian priest actually practises Shamanism; and with most of the smaller tribes of north-eastern Siberia it is no exaggeration to say that conversion to the Orthodox Russian Church involves little more than the addition of another charm in the form of an ikon. A recent writer observes that neither the monks nor the secular priests have any real spiritual influence among either the Siberiaks or the natives¹.

¹ Czaplicka, *op. cit.* p. 188.

(2) SOCIAL AND POLITICAL

(i) *Russians*. Eastern Siberia consists of the two Governments (*gubernies*) of Yeniseisk and Irkutsk, the territories (*oblasts*) of Yakutsk, Transbaikal, Amur, Primorsk (Maritime Province), Kamchatka, and the division of Sakhalin. These are also grouped for administration under two general Governments—that of Irkutsk, including Yeniseisk, Irkutsk, Transbaikal and Yakutsk; and that of the Amur, including the Amur territory, Primorsk, Kamchatka, and the division of Sakhalin.

Civil governors have been gradually taking the places of the military governors of all these provinces, excepting those of Kamchatka and Primorsk. Where a civil governor is appointed there is a general administrative council presided over by the deputy governor, who is directly responsible to the Imperial Minister. The business is deputed to committees, each of which is directly under the Ministry (at Petrograd) of the department concerned. This centralisation is the theme of much complaint in Siberia. In a new and growing colony at a vast distance from the capital, and presenting altogether strange and novel conditions, it is obviously desirable that the local government should possess elasticity and be enabled to provide quickly for new developments.

The whole of Siberia was represented in the Russian Duma by eight members, elected by indirect voting.

Each province is divided into districts (*uyezds*), each district into cantons (*volosts*), each canton into villages. The governor of the province appoints a chief (*nachalnik*) over each district as his representative. This chief is also local commissioner of the police, and in turn appoints the local commissaries of police, who are subordinate officials. They may act as an alternative to the *volost* courts, but they are generally ignorant and illiterate. The *nachalnik* also appoints the collectors of taxes, and also the justices of the peace, of whom there is one to every four *volosts*.

Since 1894 there have been municipal Dumas in certain towns, the members being elected by those citizens who pay the "apartment tax." The municipal Duma has legislative powers only and appoints a board of aldermen possessing deliberative functions.

In many Governments in European Russia the gap in local government between the towns and the villages—that is, the larger country districts—is filled by the *zemstvos*, but Eastern Siberia has no *zemstvos*. The Russian Cabinet had agreed to draft a Bill in the autumn of 1916 for the introduction of *zemstvos* into Siberia, beginning with the Governments of Tobolsk and Tomsk.

The *mir* (folk-moot) of the village is strong in Siberia, and only the peasants can vote in it. The chairman (*starosta*) is elected annually or less frequently. The *mir* assigns to each family every few years its hut and strips of diversified land. Since 1906, in European Russia, the growing realisation of the evils of this system, with its premium on laziness, handicap on energy, and check on modern methods, has resulted in legislation enabling the peasant to retain his land in perpetuity; but in Siberia, where the peasant is more conservative, this movement has not progressed so rapidly. Nansen¹ says that a report by Stolypin shows that he intended to introduce this reform into Siberia, but that old custom hindered it. Common ownership has its advantages in a great and sparsely populated country, as life in communities avoids the grave danger of murder and robbery to which the inhabitants of lonely farm-houses would be subject. Yet the movement is growing; in 1912, in the districts of Yeniseisk and Kansk (in Yeniseisk Government), 34,452 acres of land were transferred from common ownership to separate farms. The *mir* has judicial rights in petty cases and power to banish a member from its community. Taxes are low. The total direct taxes paid in the whole of the Yeniseisk Government average about 1½ roubles per person per annum. The *mir*s are combined into cantons (*volosts*)

¹ F. Nansen, *Through Siberia*, p. 242.

which elect an elder (*starshina*) and appoint small tribunals for settling certain civil and criminal cases, up to a fine of three roubles or seven days' arrest. These courts have not proved entirely satisfactory, the secretary to the *starshina* being a professional and not of the peasant class. Since 1911 local boards of magistrates have been constituted as courts of appeal.

These democratic institutions are counterbalanced by restrictions imposed by a centralized and bureaucratic authority. A power of general supervision is lodged in the "district committee of the affairs of peasants."

In the military lands, the Cossacks have their own courts under the jurisdiction of the Ataman of their district. Judges are elected by the Cossacks' assembly.

The Russian people is divided into classes according to status, but in the eye of the law the nobles and the peasants are the only two classes with strictly defined rights and obligations. The official analysis of the Siberian population gives the following component elements per 1000: 8 nobles, 3 clergy, 3 honourable citizens and merchants, 56 burgesses, 709 peasants, 45 Cossacks, 146 natives and 30 others. It should be noted that among the peasants are found many cultured men who have lost their original status.

The Siberians, like all colonial peoples, have a strong sense of personal independence. They are not serfs, but rejoice in the sense of possession of their own lands. They use more modern methods than do their brothers at home; and many of the cultured classes have longed and striven for an effective voice in the administration. Such a civic education is a necessary preliminary to the fulfilment of their aspirations to wider influence.

The impatience of a growing colonial people at having their colony made a dumping-place for convicts had already in the 'eighties caused the Government to take action, and the *ukase* abolishing exile was a further recognition forced on it by developments following on the opening of the Trans-Siberian Railway. The *ukase*, however, does not since 1905 seem to have been strictly enforced. The Russo-Japanese War inci-

dentally let loose a great many convicts, and the recent war has left this class, it may almost be said, in possession.

Animosity against the criminal exiles is growing in Siberia, not only because of their wrongdoings, but also on account of their terrible cost to the new communities. 100,000 *brodyagi* are living at large, begging and stealing. In addition, the expenses of escorting and hunting-up exiles and paying arrears of taxation for unsuccessful colonists is a heavy burden on the struggling community. Half the crimes are committed by the exiles, who form less than six per cent. of the population; and the worst crimes, such as murder, preponderate.

The policy of dumping convicts in Siberia is expensive and produces bad results. The convicts drift to mines, fishing stations, etc., and then join the *brodyagi*. Nor do they become reformed; on the contrary, Siberian crimes have a special quality of atrocity and brutality. The *brodyagi* are increasing rapidly in numbers, and, if preventive measures are not taken, they will prove a serious menace to society and a disastrous check on the development of the country¹. Of course, this refers to the criminal exile, who gives rein to his propensities of thieving and gambling, particularly in the north and east. In southern Siberia, on the contrary, the political exile has undeniably raised the standard of culture in the towns. A further evil is revealed in the Siberian proverb, "Officials come and go, but the trader is always on our backs." This is true both for the native and the settler, many of whom live in the serfdom of debt.

(ii) *Natives*. It may be said that the Russian Government, after the initial cruelties committed by the Cossacks and other adventurers, has interfered very little with the natives. If the latter have suffered it has been rather at the hands of the subordinate officials, and incidentally through the hard dealings of unscrupulous traders. The Government prohibition of the supply of vodka to the natives is ineffective.

¹ Czaplicka, *op. cit.* p. 260.

The Russian law allows the natives to settle their own affairs according to the customs of the tribes, save in the matter of capital offences. The Russians have developed the native clan system and incidentally emphasised the authority of the presiding member. An elder used to be elected annually; but now this officer, who is often called a prince, holds office for three years and is occasionally re-elected. His chief duty is to collect the tribute due to the Government, but he has authority in council (recognised by Russian law as an "oral" council) to punish with imprisonment and even physical chastisement.

This "oral" council, with an elected head, is found throughout the tribes and is naturally rather more developed and complex among the Buryats and the Yakuts. The Buryats are grouped into administrative clans with an hereditary head. There are special final courts which administer justice on the basis of existing customs founded on the old Mongol steppe laws. These have an extensive jurisdiction, with an appeal to the rural surveyors. The Yakut clans are grouped in *naslegs* consisting of from one to thirty clans, and the *naslegs* in larger bodies (*ulus*). The clan is responsible for the crimes of its members. The council of elders of the clan used to decide all legal and economic questions; but now there is more centralization, and the president, with a police court, is the authority over the *ulus*. Taxation, in the case of the Yakuts, is levied through a poll tax of 4 roubles per person, and the richer individual pays an income tax as well. The tribute presses hardly on some tribes and lightly on others. For instance, Nansen mentions the case of the Yuraks on the Yenisei, who are becoming extinct, and are liable to pay even after death, since they are not taxably dead until the next census takes note of the fact. Poor or rich, all adult Yuraks were paying in 1912 10½ roubles each; and for this "they get no education, no schools, no priests, no doctors, no roads, no communications of any kind¹." On the other hand, the Chukchis, num-

¹ Nansen, *op. cit.* p. 124.

bering nearly 13,000, pay but 247 roubles and receive a present in return.

From the Koryak in Kamchatka to the Ostyak on the Yenisei, the natives complain, and with reason, of the hardships of having to supply free transport for all officials, including the doctor and the priest. This may spell poverty or even worse for the poor man and his family. He has always to be ready and on the spot with his reindeer or dog-sleigh, thus being unable to follow the hunt at the busiest time of the year and make provision for himself and family.

(3) EDUCATIONAL

Russia is divided into fifteen educational districts, each with a Curator in charge. District 14 includes the Governments of Yeniseisk and Irkutsk and the *oblast* of Yakutsk; District 15 the *oblasts* of Amur, Transbaikal, Kamchatka, Primorsk, and the division of Sakhalin.

In 1864 primary schools were established to teach the "three R's," religion, and church singing; and from 1884 to 1894 the clergy gained considerable control over them. During Nicholas II's reign, towards the end of the nineteenth century, there was a great revival of interest in education, and large increases were made between the Russo-Japanese War and the year 1914 in the Government aid to education. Education in European Russia owes much to the *zemstvos*, which provide the provincial and district schools, but, as has been said above, Eastern Siberia has no *zemstvos*. In the Siberian towns the municipalities provide the primary schools for the boys, the girls being provided for by private effort. The State primary schools, however, are too few, and the education in them is unsatisfactory. The State provides for higher education both general and technical. The chief town of every province has a classical gymnasium and a pro-gymnasium for girls. These are not of high grade, and there is local clamour for science schools. There is a University and an Institute of Technology at Tomsk, but none in Eastern Siberia. An

offer from Irkutsk to found a university in that city was rejected by the Government. Students who can afford it go to Tomsk, where also is the "House of Science," a popular University in which teaching of all grades is freely offered.

There are 6245 teaching establishments in the whole of Siberia, with 344,678 pupils, exclusive of those in the Jewish *kheders* and Mohammedan *medressehs*. There are also 49 public libraries. The budget of the Minister of Education for the year 1916 was 165,159,780 roubles, and in addition the other Government departments, such as that of agriculture, allotted large sums for education.

Siberia lags behind European Russia in literacy, the former having only 12·3 per cent. literates to the latter's 22·9 per cent. Out of every thousand inhabitants in 1912 there were 36·8 per cent. being taught in Siberia as compared with 54·6 per cent. in European Russia.

GENERAL OBSERVATIONS.

The Colonial Spirit.—Siberia, although physically an extension of European Russia, is in most senses a colony, and this is especially true of Eastern Siberia. There is more freedom from State restriction than in Russia proper. Distance and a new environment, in which new needs have to be met by improvisation, make for this. It is said of the Russian peasant in Siberia that, "though born in Russia, the child of Russian parents, he repudiates his nationality, calls himself Siberiak, and is proud of his country¹."

This independent colonial attitude is a familiar one in the history of colonization; and a less fatalistic, long-suffering people than the Russians would have before this put forth more forcible claims to self-government. Perhaps the absence of all but a small minority of the educated and middle-class elements, and the presence of a menace from the ubiquitous outlaws now at large, have checked the growth of claims for local self-government. Even the demand for *zemstvos*, insti-

¹ H. Seebohm, *The Birds of Siberia* (London, 1901), p. 480.

tutions comparable to county councils, which have done excellent work in Russia, is opposed by a minority which asserts that the *zemstvos* are unsuitable for a country of peasants the bulk of whom are illiterate. To this it is replied that districts in European Russia with similar conditions are examples of orderly government. There was, before the recent disruption, a large party in Siberia which went so far as to demand Home Rule, but in no way desired the withdrawal of Russia's control over imperial and foreign affairs.

External Relations.—The policy of General Gondatti, as Governor-General of the Amur territory, was to exclude the Chinese and to fill their places with Russian workers, thus establishing firmly the occupation of the sparsely settled districts of Russia's Far-Eastern possessions; but there is a party in Siberia opposed to this policy for economic reasons (cf. pp. 54–56).

Since the Treaty of Portsmouth (1905) Russia has done much to strengthen herself against Japan. In addition to works already completed, a strategic road has been planned to duplicate the railway from Khabarovsk to Vladivostok.

Russia's relations with Mongolia have hitherto been friendly. Mongolia lacks funds and experience for the carrying on of the Government, and has therefore leant more and more upon Russia for support. A railway from Lake Baikal, passing through Kiakhta on the frontier to Urga, the capital of Mongolia, and joining the Kalgan-Peking Railway, has been planned. Telegraph lines and posting establishments already link up the Irkutsk Government in Siberia with Kobdo and Uliassutai in Outer Mongolia.

Slow Progress.—The contrast between the rapid occupation of Siberia and its slow development is so marked that the question naturally arises whether this is due to mistaken policy or maladministration. Both are responsible in a certain measure. The policy of making Siberia a great penal settlement and allowing escaped convicts to terrorize the population, together with the stigma arising from the cruel treatment of the

exiles, has been undoubtedly a hindrance to its development. It has kept away honest settlers; and the resulting insecurity of life and property have deterred capital from flowing in. In contrast with another great colony, Australia, the penal policy was maintained until the beginning of the twentieth century. At the same time it must be remembered that Russia itself was not commercially ripe for the rapid development of Siberia. Until recently the beginnings of a middle class did not exist in Russia. There were the peasants and the nobles; the limited trade and commerce were in the hands of the Jews and a few Germans. Also it should be remembered that Siberia cannot be said to have had as good a class of colonists as North America or Australia. Lastly, the centralization of Government during the last decade or two, and the corruption and peculations of officials, have hindered the development of this great colony.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) Roads

The principal highway of Siberia is the Trakt or Great Siberian Road, which leads from European Russia to Kiakhta on the Chinese frontier, passing through Krasnoyarsk, Irkutsk, and Verkhne Udinsk. Its length in Eastern Siberia is 1245 miles. Eastward from Verkhne Udinsk a road goes through Chita and Nertchinsk to Stryetensk, beyond which the Amur is the principal means of communication, the roads in the far east, except a few near Vladivostok, being as a rule bad. Roads run from Achinsk to Minusinsk (228 miles), from Verkhne Udinsk to Petrovski Zarod (121 miles), from Krasnoyarsk to Yeniseisk (219 miles), and from Irkutsk to Gruznovskaya on the Lena (249 miles). In the north there are only tracks, which in the north-east are of little use except in winter.

Along the Great Road there was under Imperial rule an elaborate posting system with post-stations where horses and vehicles could be obtained, though often after much delay. The nature of the roads varies greatly in different parts and in different seasons. During the periods when the frost is beginning and ending, travelling is very difficult. Bridges are rare, and most of the rivers have to be crossed by ferries. Such bridges as exist are mostly of wood and liable to be washed away by floods. The usual vehicles employed on the roads are the *travolik* (a two-wheeled car used especially in forests) and the *tarantass* (a rough, springless, four-wheeled carriage). During the winter months sledges are everywhere used. In the south they are drawn by horses, in the north and north-east as a rule by reindeer, but in

some parts, such as Kamchatka, by dogs. In winter the frozen rivers afford excellent roads.

(b) *Waterways*

The great rivers of Siberia are by far the most important means of communication; they are used by steamers when navigable and by sledges during the great part of the year when they are frozen.

Of those flowing into the Arctic ocean the *Yenisei* is open for navigation from May or June to November, the current being weakest in July and August, and strongest in May, June, and September. Rapids are not numerous except in the upper reaches. Small sea-going vessels can reach Yeniseisk, 1520 miles from the mouth, and light craft can go as far as Minusinsk, 525 miles further. There are about 60 steamers on the river. Of its tributaries, the Lower and Middle or Stony Tunguska are of little use for navigation; but the Angara or Upper Tunguska, although obstructed by many rapids, can be navigated for 1161 miles. The traffic of the Yenisei system is mostly of local importance and consists chiefly of corn and timber.

The *Lena* is navigable up to Kachugskoe (2760 miles) for small craft during high water in spring, but there is little navigation above Ust Kutscoe, 360 miles lower down. Navigation is difficult because of the shifting nature of the river bed and the formation of sandbanks. The current, however, is swift only in the upper course of the river and in the delta. Floods are caused in June by the melting of ice and snow, and after they have abated the water rises again in July and maintains its level till the autumn. The river is free from ice by the middle of May at Kachugskoe, by the middle of June at Yakutsk, and early in July in the delta. It is frozen over about the middle of November at Kachugskoe and Yakutsk and about the middle of October in the delta. Of the tributaries of the *Lena* on the left bank, the *Vilyui* is navigable up to the point where it is joined by the *Chona*, a distance of 900 miles; while the *Kuta*, with its tributary the *Muka*, and the *Ilga* are navigable for part

of their courses and have some commercial importance. On the right bank, the Aldan is navigable for 800 miles; the Olekma is navigable for 18 miles up to its confluence with the Chara, which can be used for 250 miles by boats and rafts; and the Vitim, which flows through gold-fields, is navigable for 360 miles. The delta of the Lena is a vast sandbank intersected by channels of all sizes, most of which are navigable but constantly shifting.

There were 30 steamers on the Lena in 1912, but few go above the mouth of the Vitim. The total traffic on the Lena amounts to about 15,000 tons a year; it consists chiefly of stores for the mines of the Vitim.

The *Yana* is navigable as far as Verkhoyansk, and even for some distance higher up by boats of moderate size. There are a few steamers on the river.

The *Kolima*, when free from ice, is always navigable to 13 miles below Sredne Kolimsk, and generally as far as the mouth of the Korkodon, but there are few vessels on the river except boats and rafts. Every summer a steamer of the Volunteer Fleet (see p. 52) used to sail from Vladivostok to the mouth of the Kolima, and in 1912 the S.S. "Kotik" reached Nijne Kolimsk. Much of the trade carried on this river is in American hands; an American sailing ship with a motor reached Nijne Kolimsk from Alaska in 1911.

The only important rivers flowing from Siberia into the Pacific are the Anadyr and the Amur. The *Anadyr* is free from ice from the middle of July till the beginning of October. As far as Markovo, 200 miles from its mouth, it is tidal and navigable by boats drawing 4 ft. 6 ins., and with slight improvements it could be made available for small craft above this point. The river can be used by rafts for 350 miles beyond Markovo.

The *Amur* is navigable up to the confluence of the Shilka and the Argun (1750 miles). The Shilka is navigable to Stryetensk (233 miles) and in the high water season to Mitranofa, 100 miles higher. The Amur-Shilka waterway is free from ice for about 5 months in the year. The Argun can only be said to be navigable for 33 miles, since further up, although there is plenty of

water, jagged rocks make navigation dangerous. Among the other tributaries of the Amur the Bureya, though dangerous, can be ascended to Sklad Paikan (130 miles), and under favourable circumstances to Chekudinski (214 miles); it is fit for timber rafts for about 400 miles. On the Zeya (Seja) large steamers can reach Zeya Pristan (438 miles from the confluence) throughout the open season; while the Silinja, which flows into the Zeya, is navigable for 83 miles. On the Ussuri navigation is possible for 375 miles, but steamers do not go above the point, 340 miles from the mouth, where it is joined by the Sungacha. They can, however, ascend the Sungacha to Lake Khanka (Hanka) and reach Kamen Ribolor, 160 miles from the confluence. The Ussuri is free from ice from the beginning of May to the end of November. Many other tributaries are navigable for considerable distances, but details are lacking.

In 1911 there were 118 iron and steel steamers and 88 wooden steamers on the Amur waterways, besides 47 steam and motor launches, 170 steel and iron barges, and 33 wooden barges. The Amur Steamship Company, which was subsidized by the Government, used to maintain a regular service on the Amur between Nikolaevsk, Khabarovsk, and Blagoveschensk, where passengers and cargo were transferred to smaller vessels for the journey to Stryetensk. Most of the steamers are paddle boats and stern-wheelers. The river traffic consists largely of barges and junks towed by steam tugs. The whole journey up stream from the river's mouth at Nikolaevsk to Stryetensk takes 25 days.

Lake Baikal, the chief lake in Eastern Siberia, is normally open for about 232 days a year in the southern, and 216 days in the northern part. There used to be a steamer service between Baranchuk and Misovsk (39 miles); and in addition there was a fleet of 7 lake steamers, 6 river steamers and several barges and smaller vessels owned by the Commercial Steamship Company, which was subsidized by the Imperial Government to run steamers to the chief villages on the lake and the main rivers flowing out of it, such as the Angara and Selenga.

(c) Railways

The great Siberian line from European Russia to the Pacific was begun in 1891 in different sections and finished in 1905 during the Russo-Japanese war. The Siberian Railway, strictly so called, terminates at Irkutsk; from that point to Manchuria station on the Chinese frontier, the line is properly termed the Transbaikal Railway, and east of Manchuria station it is continued by the Chinese Eastern Railway. The original intention was to bring the line by way of Stryetensk and Khabarovsk to Vladivostok, but on account of the great technical difficulties that this route involved, the alternative route through Manchuria was adopted. Later, however, the project of a railway along the Amur was revived, and a line branching from a point near Karimskaya and passing through Stryetensk to Khabarovsk was completed in 1916. At Khabarovsk this line joins the Ussuri Railway to Vladivostok.

The Siberian, Transbaikal, and Amur railways are owned and worked by the State. The Chinese Eastern Railway belongs to a private company, formed under an agreement signed in 1896 between the Chinese Government and the Russo-Chinese Bank; the shareholders must be Chinese or Russian subjects, and after 80 years the railway is to pass without any payment into the hands of the Chinese Government. The branch line from Achinsk to Minusinsk is also under private control.

The standard Russian gauge is 5 ft. (1.52 metres). Siberia presents many difficulties to railway construction, which, however, is much easier in the west of Asiatic Russia, where very little tunnelling is necessary. The railway stations are usually a long way from the towns whose names they bear, as the track runs straight so far as possible and is seldom deflected towards centres of population. The efficient working of the Siberian system is rendered difficult by the division of the trunk line into several sections, each of which has its own independent administration.

The Siberian Railway, in the strict sense of the term,

runs for over 800 miles in Eastern Siberia, passing Achinsk, Krasnoyarsk, Kansk, and Tulum, and ending at Irkutsk. It is a double line throughout its length. The only branch that leaves it is the line from Achinsk to Minusinsk, which, keeping near the Yenisei, traverses a fertile region with considerable resources of coal and iron.

The Transbaikal Railway, which starts at Irkutsk, runs to Manchuria station, on the Chinese frontier, 944 miles distant. There are 40 tunnels and numerous cuttings and bridges in the section round the south of Lake Baikal. The line is now double to Karimskaya (710 miles) except on some of the bridges near the lake. Nine miles beyond Karimskaya is Kitaiski Razieyd, the junction for the line to Stryetensk (167 miles) and the Amur Railway.

The Chinese Eastern Railway lies almost entirely outside Eastern Siberia, but affords the shortest route from Irkutsk to Vladivostok. Its length, from Manchuria station to its junction with the Ussuri Railway at Pogranichnaya, 5 miles within the Russian frontier, is 933 miles. The track is single throughout.

The Amur Railway starts at Kuenga, 134 miles from Kitaiski Razieyd on the line to Stryetensk, and runs by way of Aleksyeevsk and Bochkarevo to Khabarovsk, a distance of 1257 miles. The line goes through very difficult country; its route is some distance to the north of the river Amur, so as not to be too near the frontier in case of war. The bridge across the Amur, completed in 1916, is 7038 feet long.

The Ussuri Railway connects Khabarovsk with Vladivostok. At Nikolsk Ussuriski, 76 miles from Vladivostok, it joins the line from Pogranichnaya, the terminus of the Chinese Eastern Railway. South of Nikolsk Ussuriski the line is double.

In addition to the lines mentioned above there is a short narrow gauge railway, built for mining purposes, from Bodaibo to the Vitim (15 miles).

Among the numerous projected railways the following may be noticed:

(1) From Achinsk to Yeniseisk.

(2) From Tulum on the Siberian Railway to Ust Kutsloe in the gold mining district of the Lena. The inhabitants of Irkutsk, however, are anxious that the line should start from their town and reach Ust Kutsloe *via* Zhigalovskaya. It is hoped that the proposed branch would eventually be extended to Bodaibo *via* Kunerma.

(3) From Misovaya or Verkhne Udinsk to Kiakhta. This branch would bring the Mongolian markets into connection with the main Siberian line. It was to be constructed at Government expense, having been approved by the Council of Ministers in 1913. An arrangement is understood to have been made in 1915 to extend this line to Urga, as the fall of Tsingtau and the expulsion of German trade from nearly all the Far East had given Russia great opportunities of acquiring fresh markets in China.

(4) From Aleksyeevsk to Nikolaevsk on the Amur. The survey of this railway is stated to have been provided for in the estimates for the 1917 budget.

(5) From Sofisk on the lower Amur to De Castries Bay.

(6) From the Ussuri Railway to Olgi Bay and Imperatorskaya Harbour. This would be of great service for the export of timber.

(d) Posts, Telegraphs, and Telephones

Mails are conveyed by rail, carriage, and sledge. In the extreme north-east dog-sledges are usually employed. Thus from Gizhiga three mails are sent by dog-sledge annually—in November, January, and April—to Markovo (468 miles), Yakutsk (1984 miles), and Petropavlovsk (1374 miles). During the winter mails are also carried by dog-sledge across the frozen Straits of Tartary to Sakhalin. Along the post-roads the Imperial mail used to take precedence of all other traffic.

European Russia is connected with Vladivostok by a telegraph line which follows closely the main route of the Trans-Siberian Railway and east of Karimskaya is supplemented by a line reaching Vladivostok *via* the

Amur and Ussuri valleys. These trunk lines have the following branches:

(1) From Krasnoyarsk along the Yenisei to Yeniseisk and Turukhansk.

(2) From Irkutsk to Manzurskaya on the Lena, thence along that river to Yakutsk (with branches to Viluisk and Bodaibo) and from Yakutsk across country to Okhotsk.

(3) From Khabarovsk along the Amur to Nikolaevsk and Cape Chuirakh on the Gulf of Amur, with branches to De Castries Bay and to Lazarev, whence cables cross to Sakhalin.

(4) From Vladivostok northwards to Tyutikha Bay.

(5) From Vladivostok to Novo Kievskoe on the frontier of Korea.

(6) From Achinsk to Minusinsk and Grigoreevka on the Mongolian frontier.

(7) From Kultuk to Tunka.

(8) From Verkhne Udinsk to Troitskosavsk, meeting the Chinese telegraph system at Kiakhta.

(9) From Chita to Mangut.

There is also a line in Kamchatka from Tigilski to Petropavlovsk.

Zeya Pristan, in the gold mining district of the Zeya, is connected by telegraph with the main system, and is in telephonic communication with the chief mines, but there are often interruptions owing to theft of the wires. Many of the mines in the south of Yeniseisk are connected by telephone.

Telegraphic communication in Eastern Siberia is liable to interruption not only through theft of the wires but also through the fall of trees. The forests and swamps constitute serious obstacles to the erection of posts and wires, and on some of the more exposed plains the frequency of violent storms makes it necessary to lay the wires along the ground.

(2) EXTERNAL

(a) Ports and Anchorages

The number of useful harbours in Siberia is by no means proportionate to the great length of its coast line. The harbours of the Arctic Ocean are frostbound most of the year, and only those at or near the mouths of navigable rivers have any means of communication with the interior. There are probably many good anchorages at various points on the north coast, but they are not adequately charted. The chief harbours along this coast are *Dickson Harbour*, on Dickson Island at the mouth of the Yenisei, a good sheltered harbour with its entrance from the south; *Tiksi Bay*, to the south of the Buikov mouth of the Lena; and *Kolyuchin Bay*, in the Chukchi peninsula, which runs far inland but is largely unexplored, though the S.S. *Tobol* of Vilkitski's expedition lay here for some time in July 1915.

The east coast is much better provided with harbours, but outside the province of Primorsk they are of little commercial importance. North of Kamchatka, *Baroness Korf Bay* has several harbours suitable for steamers and long used by American vessels. Some of the harbours on the east coast of Kamchatka deserve special notice. *Karaga Harbour*, at the mouth of the Karaga river, affords fairly good shelter. *Kamchatka Gulf*, at the mouth of the Kamchatka river, might be developed; a scheme of improvement was sanctioned by the Government, but at present the bar at the entrance makes the gulf of little use for shipping. *Avacha Bay* is one of the finest harbours in the world, but it is obstructed by ice from December to May; the chief town of Kamchatka, Petropavlovsk, is on its eastern shore. There are no good harbours on the western side of Kamchatka.

The Sea of Okhotsk north of the mouth of the Amur contains some anchorages which are more or less frequented. *Penzhina Bay*, although it has not been sounded, is visited occasionally by American whaling steamers, and owing to the strong tide which runs

there, it remains open for a longer time than most of the inlets on that part of the coast. The chief anchorages in the bay are near Itkana on the west coast and Mamet-ski on the east. *Gizhiga Bay*, which runs inland for 166 miles, also affords anchorages, but of a less satisfactory character; it shares with Penzhina Bay the advantage of being frozen for only a short period except in its northern part. The little settlement of Gizhiga, twelve miles from the mouth of the river of that name, is the chief centre of trade in this region. *Yamskaya Bay* is in some ways a good harbour, but hardly a sufficiently safe anchorage for steamers. *Ola Bay* is sheltered, with good anchorage, and is one of the harbours selected by the Government for improvement. *Okhotsk Harbour*, though it has given its name to the whole sea, is of little importance; it is only accessible to vessels of light draught, and is ice-bound from November to May; the anchorage off the mouth of the River Okhota is about $1\frac{1}{2}$ –2 miles from the shore. *Port Ayan* is the best anchorage in the Sea of Okhotsk, and might be considerably improved if a breakwater were erected to mitigate the force of the north-east winds. The depth varies from 4 to 6 fathoms, and steamers can come within 330 yards of the shore, much nearer, that is to say, than in any other port of this sea. Port Ayan is open from June to November.

Of the Siberian ports with an active trade, the most northerly is *Nikolaevsk* at the entrance to the Amur. Nikolaevsk has hitherto been regarded as inconvenient because of the absence of facilities for trans-shipping freights and the exposed position of the anchorage for sea-going ships. Moreover, ships drawing over 18 ft. cannot approach the town. At the beginning of the war, however, the accommodation was being enlarged and improved; and, when the work then in process is completed, the port will have a quay-space of 6440 sq. ft., a well-protected basin with a uniform depth of 25 ft., increased accommodation for river-steamers, and a number of new warehouses. The river along the quays was being deepened. The bar at the river mouth has

been a great difficulty, since large vessels have to discharge part of their cargo before crossing it; but a dredger was to be employed upon it. It is hoped to lengthen the period of open water at the port by the use of ice-breakers. Nikolaevsk imports considerable quantities of manufactured goods and agricultural and mining machinery destined for places in the Amur basin. In 1911, 108 sea-going vessels entered the port; most of the sea-borne traffic came from Japan.

De Castries Bay in the Gulf of Tartary might be made the chief port of the region if the scheme for connecting it with the interior by railway were realized. The bay is exposed to easterly winds but gives good anchorage behind several islands. Vessels bound for the Amur usually discharge part of their cargo here. De Castries Bay is the pilot station for the Amur mouth. It is ice-free for a longer period than Nikolaevsk and is easier of access. At the head of the bay is the settlement of Alexandrovsk.

Imperatorskaya Bay has several fairly good anchorages and there are some small settlements on its shores. It has been proposed to link it by railway with Khabarovsk. *Tyutikha Bay* offers but poor shelter owing to its exposure to the violent north-east and south-east winds that prevail, but has anchorage in $9\frac{1}{2}$ fathoms. *Olgi Bay*, further south, is over two miles broad at its mouth and opens to a land-locked harbour with $3\frac{1}{4}$ fathoms in the entrance channel.

Vladivostok is much the most important port of the Russian Far East, and has a naval and a commercial harbour. The docks in the naval harbour are nominally open for merchant vessels, but their use by such craft is subject to so many restrictions that the privilege is of little value. The commercial harbour occupies the western part of the so-called Golden Horn. It has an area of about 600 acres, and the depth at the entrance is from 12 to 14 fathoms. There is deep water in all parts of the harbour. It is frozen over for about three months from the middle of December, but a powerful ice-breaker keeps a way open for steamers. Eleven fresh berths were

- prepared during the war. New wharves, moreover, have been under construction at Ghurkin Point on the south side of the bay, but there is no railway connection with this part.

Near the Korean frontier is *Posiet Bay*, with several anchorages and the loading and military station of Posiet.

(b) *Shipping Lines*

The overseas trade of Eastern Siberia passes mainly through Vladivostok. The principal line running regular services to and from that port in the past was the Russian Volunteer Fleet Association, a concern heavily subsidized by the central government, which had the right of using its ships as auxiliary cruisers in time of war. The most important service maintained by the Russian Volunteer Fleet was a series of 18 annual sailings between Vladivostok and Odessa *via* Singapore, Colombo, and Suez. Many troops and large quantities of government stores were conveyed by this route; indeed, without this official patronage the service could not have been kept up.

The Volunteer Fleet also maintained a service of 16 annual sailings from Vladivostok to ports on the Straits of Tartary and another of 21 annual sailings to ports on the Sea of Okhotsk, in Kamchatka, or even further north, various routes being followed. One ship was sent every year to the Kolima river *via* Bering Straits.

During the war the Odessa service was suspended, and the fleet is now dispersed all over the globe.

Vladivostok was in communication with Japan by regular mail services, principally with Niigata and Tsu-ruga. The services were maintained either by the Russian Volunteer Fleet or the Osaka Shosen Kwaisha, a Japanese line. A coasting line belonging to two Japanese companies, with its headquarters at Fusan in Korea, touched at Vladivostok. The rest of the shipping calling at the ports of Eastern Siberia consisted entirely of tramp tonnage. In the flourishing period of the soya

bean export trade, between 1906 and 1912, a good deal of miscellaneous shipping was attracted to Vladivostok.

The shipping facilities existing in 1914 were more than adequate for the freights offering, and the regular lines serving Eastern Siberia were all more or less dependent on State assistance. Unless the subsidized Russian services are resumed it is to be expected that Japanese shipping will in future absorb almost all the sea-borne traffic of the Siberian coast.

(c) Cables and Wireless Communication

Two Russian cables cross the Straits of Tartary from Lazarev and De Castries Bay, terminating respectively at Cape Pogobi and at Alexandrovsk in Sakhalin. There is also a Japanese cable from Alexandrovsk to Todo Shirna, a Japanese island off southern Sakhalin, and Hokushu. Two cables connect Vladivostok with Nagasaki in Japan.

Several wireless stations have been built and others are contemplated. For several years one at Dickson Island, at the mouth of the Yenisei, has been in operation. A wireless station at Okhotsk (range 130 miles) communicates with one at Nayakhaskoe on Gizhiga Bay, one at Novo Mariinsk, at the mouth of the Anadyr, and another at Markovo, higher up the same river. The station at Novo Mariinsk communicates with the American station at Nome on Norton Sound in Alaska. On the Amur there are wireless stations at Khabarovsk, Nijne Tambovskoe, and Nikolaevsk, the last with a range of 240 miles. This station communicates with one at Petropavlovsk (range 240 miles) and one at Kerbinski on the Amgun (range 170 miles). Iman on the Ussuri has a military wireless station. At Vladivostok there are two powerful wireless stations, within range of several in Japan. A number of the Russian vessels which ply in Far Eastern waters and many of the Russian ice-breakers are fitted with wireless apparatus.

Stations are reported to be under construction at Yamsk on the Sea of Okhotsk, and at Sredne Kolimsk

on the Kolima. The establishment of a station at Tigil-ski on the west coast of Kamchatka is contemplated.

(B) INDUSTRY

(1) LABOUR

Until recent years industrial and commercial undertakings in Eastern Siberia were seldom conducted on a large scale, and there was not much demand for hired labour. Of late, however, more ambitious attempts have been made to exploit the great natural resources of the country, and the difficulty of securing suitable workers has become serious. Of the various elements of the population, the native tribes, with the exception of some of the Buryats, are of little value in modern industry; the free colonists are as a rule fully occupied in working their own land; the Cossacks, with their military duties and traditions, are more disposed to hire others to work for them than to offer their labour to others; while exiles from Russia, the employment of whom is in any case open to serious objections, are becoming rare, for no criminals have been exiled since 1902 and few political prisoners have ever been sent to Eastern Siberia. The economic development of the country must therefore depend mainly on imported labour, and the burning question is whether this shall be obtained from Europe or from Eastern Asia.

There has already been a large influx of "yellow" labour, particularly into the eastern territories. Chinese have come in large numbers, and, as elsewhere, have shown themselves industrious, efficient, and content with low wages. They have unquestionably done admirable work in developing the resources of the country. The advantages of employing them are illustrated by the fact that at Vladivostok, a few years ago, street paving laid by Russians had to be taken up almost immediately and relaid by Chinese. Similarly, at the same town, a quay built by Russians was found to be

so badly constructed that Chinese labourers had soon to be called in to erect another in its place. Commercially, too, the Chinese play an important part, the trade of many villages being wholly in their hands.

In the eastern territories there is also a large population of Koreans, who have been migrating to Siberia in considerable numbers for more than half a century, originally impelled thereto by famine and the extortions of their own officials. In contrast with the Chinese, who generally intend to return home after saving a little money, the Koreans wish to remain permanently in the country. They are good farmers, better in fact than most of the Russian colonists, and are frequently employed by Cossacks to work their land. There are a number of Korean colonies in the Far East, one of the most important being at Blagoslovennoe at the junction of the Samara and the Amur.

Since the war of 1904-5, a good many Japanese have come to Eastern Siberia. The Japanese artisan is found everywhere; he is superior to the average Siberian in craftsmanship, as well as in diligence, sobriety, and trustworthiness.

There is obviously much to be said in favour of the use of "yellow" labour in Eastern Siberia. The Russian population, however, is bitterly opposed to it; and shortly before the European war (cf. p. 39), the Government, fearing lest the economic life of Siberia should fall under Chinese control, adopted a policy of exclusion. This was applied with particular vigour in the Primorsk territory; and in the Amur and Ussuri valleys Chinese labour could only be employed behind the backs of the officials. Attempts, which met with some measure of success, were being made to prevent the employment of Chinese on public works. Russian workmen were encouraged to emigrate to Eastern Siberia; and some hundreds used to arrive in the spring and return home in the autumn after earning a substantial sum over and above the cost of their journey. But Siberia has naturally a bad name among the working classes of Russia, and its reputation has not been improved by the scan-

dalous conditions under which miners in the gold fields work and live. Consequently the supply of labour from Europe remained inadequate; and, for all the efforts of the Government, the Chinese, being indispensable to industry, continued to enter the country in large numbers. In the Transbaikal province the Chinese population was growing; and retail trade was almost wholly in the hands of Chinese shop-keepers and hawkers. Since the outbreak of war, the Chinese have doubtless taken full advantage of the crisis caused by the calling up of able-bodied Russian subjects for military service.

It is desirable that a definite and consistent policy regarding "yellow" labour should be adopted as soon as Eastern Siberia has a settled government. The problem is unfortunately very perplexing, as both the admission and the exclusion of Chinese are open to weighty objections.

(2) AGRICULTURE

(a) *Products of Commercial Value*

Eastern Siberia falls far behind Western Siberia in agricultural production, but considerable progress has been made, especially since the Government began to encourage the transfer of land from the communities to individual holders. The land which is easily accessible and most favourably situated for agriculture has already been occupied, but much good soil remains available for those who are willing to be at the trouble of clearing the *taiga*. The agricultural production of Eastern Siberia by no means satisfies the needs of the country, and the Provinces of Transbaikal, Amur, and Primorsk are largely supplied from Manchuria, while those of Yeniseisk, Irkutsk, and Yakutsk are in great measure dependent on Western Siberia. It is estimated

that the provinces of the Far East could produce at least 600,000 tons more grain than at present. But the danger of over-production must be carefully avoided, for the lack of railways and roads in most parts of the country might make it difficult to find a market for surplus Siberian grain. Many authorities hold that the future of the peasant in Eastern Siberia must lie in dairy-farming and stock-raising rather than in corn-growing.

The acreage under the principal crops in 1911 in Eastern Siberia is shown in the following table:

| Province | | | | Cereals Acres | Potatoes and leguminous crops Acres | Flax and hemp Acres |
|--------------------------------|-----|-----|-----|------------------|--|------------------------------|
| Yeniseisk | ... | ... | ... | 1,159,100 | 34,840 | 29,060 |
| Irkutsk | ... | ... | ... | 960,600 | 23,500 | 9,200 |
| Transbaikal | ... | ... | ... | 907,400 | 20,700 | 1,600 |
| Amur | ... | ... | ... | 683,940 | 13,200 | 1,360 |
| Primorsk (including Kamchatka) | ... | ... | ... | 604,700 | 40,500 | 11,000 |
| Yakutsk | ... | ... | ... | 32,600 | 1,200 | — |
| | | | | 4,348,340 | 133,940 | 52,220 |

Cereals. The great preponderance of spring over winter grain is noteworthy. Owing to the long winter and slight snow-fall, winter grain can seldom be successfully grown, though in the region of Achinsk (Yeniseisk), where winter ends early and much snow falls, it does well. The district of Minusinsk, with its dry steppe surrounded by rich black earth, is suitable for corn-growing, and supplies Krasnoyarsk and the basin of the lower Yenisei, producing some 4000 tons of flour a year. In the Government of Irkutsk rye is the chief crop, oats and wheat standing next in favour, while buckwheat and millet are also grown. In Transbaikal spring wheat is the principal cereal, forming 50 per cent. of the total crop; then comes winter wheat, followed by oats, barley, buckwheat, and millet; the quality of the land is excellent, but harvests are uncertain, and there are frequent local failures. In the Amur Province the Zeya-Bureya plain is very fertile and is largely under oats and wheat, other cereals not being much grown. In Primorsk, the output along the Ussuri is restricted by the frequent inundation of the best arable land, and the province as

a whole is not so well suited for corn as for vegetables. Large areas, however, are under oats and wheat; rye, barley, buckwheat, and millet are also grown, but in much smaller quantities. Some barley and rye are grown in Kamchatka; the rye is sown in May, and the harvest, when there is one, is in August. In the Yakutsk province, a recent commission has decided that agriculture could profitably be extended. The flourishing colonies of Skoptsi near Olekminsk and Yakutsk grow wheat, summer rye, barley, and oats. Grain ripens as far north as about 64° N. lat. In this province, however, the harvest is in general very moderate.

Flax and hemp. These are grown in many parts, especially in Irkutsk, parts of Transbaikal, and Primorsk. In the last, the two crops together yielded 2944 tons in 1912.

Fruit. Fruit does well in Primorsk, where fruit-growing might be developed. At Bavabash an apple has been produced not inferior to Californian varieties. It is hoped in time to supersede by home produce the imports of fruit, especially those from Japan. Grapes of a poor quality grow wild in South Ussuri district, and the inhabitants make wine of them for local use.

Poppies. Opium is produced in the Ussuri region, which is very favourable to the growth of the poppy. Russians are not themselves addicted to the drug, but a considerable quantity used to be sent to China. The Cossacks of the Ussuri region let their land to Chinese growers, thereby attracting the most undesirable Chinese, exhausting the ground, and becoming idle and demoralized themselves. In 1911 some 10,000 acres were under poppy, but in 1913 the crops were destroyed by order of the Government.

Tobacco. Tobacco is grown to some extent in Yeniseisk and Irkutsk. In 1911 about 600 acres were under tobacco in Primorsk.

Vegetables. Potatoes are widely cultivated. In the Amur province they do particularly well; an average of 12 cwt. 1 stone is obtained from an acre; and in 1911 21,900 tons were produced in this province. They have

been successfully cultivated as far north as Siktiakh on the Lena, and even in Kamchatka they are grown in most of the villages.

The cultivation of the beetroot may become of much industrial importance. At Minusinsk, where the beet grows particularly well, a beet-sugar factory has been established, and it is hoped that one will soon be established in Vladivostok for the excellent beets of Primorsk. Beets do well almost everywhere in the newly cleared ground along the Amur Railway. Their cultivation is carried on chiefly by Chinese and Koreans.

Soya beans are grown in Primorsk, where 3309 tons were produced in 1911.

Of wild vegetable products the most important is the cedar-nut. These nuts, which yield a good oil, are collected for eating in the Amur Province, and in much larger quantities along the upper Yenisei and the upper courses of the tributaries of the Angara. In the Sayansk *taiga* the industry is established on a commercial basis; and in a good year, which occurs every four or five years, 800 tons are sent from the upper Yenisei to Krasnoyarsk.

Live-stock and animal products. The numbers of the principal species of live-stock in Eastern Siberia in 1911 are shown in the following table. Besides those enumerated, camels, maral deer, and reindeer are kept:

| Province | Cattle | Goats | Horses | Pigs | Sheep |
|--|-----------|---------|-----------|---------|-----------|
| Yeniseisk | 500,139 | 7,472 | 494,157 | 123,307 | 728,779 |
| Irkutsk | 354,622 | 29,468 | 287,518 | 79,452 | 203,518 |
| Transbaikal | 1,003,145 | 103,082 | 591,588 | 119,366 | 1,021,967 |
| Amur | 75,231 | 83 | 101,206 | 48,200 | 11,836 |
| Primorsk (including Kamchatka) | 171,618 | 200 | 109,516 | 91,187 | 4,640 |
| Yakutsk | 241,674 | — | 88,138 | 217 | 135 |
| Total | 2,346,429 | 140,305 | 1,672,123 | 461,729 | 1,970,875 |

Camels are used in the warmer parts of Eastern Siberia. Those of the Transbaikal province, which possessed 11,000 in 1911, are strong and of great endurance. A pair of them can carry 20–25 cwt.

Cattle are on the whole not numerous in Yeniseisk and Irkutsk, though stock-raising is the chief occupation of the nomads of Minusinsk, Achinsk, and Turukhansk,

and of the natives of the Balogansk and Verkholensk regions. In southern Yeniseisk each peasant possesses, on an average, 2 horses, 5 cattle, and 10 sheep; and all the oats and hay are kept for their food in winter. But only the Minusinsk district has enough cattle for its needs, and large numbers of Soyot cattle are imported for slaughter from Mongolia. In Transbaikal cattle-raising is important, especially among the nomad tribes, and owing to the *vostvetz* grass which covers great tracts of this province and yields even better fodder in winter than in summer, the industry should be capable of great development. There is already a co-operative society with its headquarters at Chita, which used to purchase cattle for the army. As many as 150,000 hides are annually exported from this province. In the Amur and Primorsk Provinces the cattle are Manchurian and Korean. The Amur Province in particular is thought by many to be more suited for cattle-breeding than for corn-growing. At present, however, most of its meat supply comes from Manchuria. Proposals have been made for building cold storage plant at Vladivostok.

Dairy-farming is of much less importance in Eastern than in Western Siberia. Yeniseisk supplied only 1.2 per cent. of the dairy produce exported to Russia and foreign markets. In Transbaikal the cattle, especially the Buryat cattle (which are Mongolian in origin), are small and yield little milk. The Manchurian and Korean cattle of the Amur and Primorsk Provinces, which are never milked in their native countries, give milk only when the calf is with them. In Primorsk dairy-farming is slowly increasing; in 1911 the province contained only five co-operative dairies, while in 1913 there were eighteen. The dealers in this province often have contracts with West Siberian firms, and consequently butter is often hard to obtain even in those parts where dairy-farming flourishes. Cows have been known to give milk in Sredne Kolimsk and Verkhoyansk, and even further north, but cattle-raising can never be profitable in those regions.

Siberian cattle are of small breed. Despite the primi-

tive nature of their keep they stand the climate well; they are free as a rule from tuberculosis, and quarantine regulations have practically extinguished rinderpest. On the other hand, they suffer from Siberian plague and from foot-and-mouth disease.

Various species of *deer* are kept. In the southern regions maral deer, a kind of wapiti, are bred in special farms (*maralniks*). The horns, cut off in the velvet, are sold to the Chinese, who extract from them a drug (*pauty*) much esteemed in China. The price of horns fluctuates very much according to the state of the markets, but is seldom less than 14s. or more than £1 per lb. In Transbaikal the *izzubr*, or Canadian wapiti, takes the place of the maral, which it closely resembles, and in Primorsk not only the *izzubr* but also the *aksis*, the most valuable of these deer, is bred. Its horns fetch from £3 to £3. 10s. per lb. The *kabargi* or musk-deer (*Moschus moschiferus*) is also bred, being highly valued by the Chinese for the medicinal properties of its musk and horns. The industry of deer-breeding is likely to grow in future.

Reindeer exist in small herds in the provinces of Irkutsk and Amur. In the former they are ridden by the Soyots. Further north they are the mainstay of the native tribes. In 1906 there were said to be 515,000 reindeer in Yeniseisk, principally in the Turukhansk district, and 95,360 in Yakutsk, 80 per cent. being in the Verkhoyansk and Kolima districts. In Kamchatka and the Chukchi Peninsula there were approximately 287,000; these regions contain the largest reindeer herds in the world, though many of them consist of half-tamed deer which readily run wild. Reindeer are used for sledging and for racing, and furnish milk, meat, clothing, and tent-covers. Besides the sledge-dogs they are the only domestic animals in the north.

Goats are kept in large numbers by the inhabitants of Transbaikal, but are of little account elsewhere.

Horses are bred mainly for farm work and for the posting service on the Great Road, though the Yakuts eat them. The Siberian horse is usually small, easily

satisfied in the matter of food and drink, and capable of enduring heat and cold. It is fast and extremely strong. The Transbaikal breed is the best known and the most popular in the southern districts, the Cossacks of the Amur preferring it to any other. These horses are 12 or 13 hands high; can draw a load of 1000 lbs. and will travel enormous distances at 40 miles a day in a team. In Transbaikal the *vostvetz* grass keeps the horses in condition throughout the year; whereas in the Amur province they get thin in winter though they fatten quickly in spring. In this province, unfortunately, the Transbaikal breed degenerates rapidly. The ugly, shaggy, little Yakut horse displays great endurance; it often lives out of doors in winter, and is even used within the Arctic Circle. Some years ago the Government started stud farms with good stallions in Transbaikal and Yakutsk.

Pigs are bred in large numbers in Yeniseisk, Irkutsk, and Transbaikal. In the last the animals are Manchurian and of poor quality; but the breed is being improved. Pigs are not numerous in the Amur Province, but in Primorsk, especially on the Ussuri, they are of considerable economic importance. Here also the breed is Manchurian.

The breeding of *sheep* is likely to become of importance in Yeniseisk and Irkutsk now that the merino sheep has been acclimatised in Central Siberia. The plains of the Yenisei have been found to be suitable for sheep-farming on a large scale; the soil yields excellent forage, and in a good season sufficient hay can be obtained for several years. The sheep are killed for their wool and tallow; there is as yet no regular demand for mutton. The Imperial Government granted subsidies for the transport of flocks to this region from European Russia and for the development of new sheep farms. The ordinary Siberian sheep is small, yielding little meat and poor wool; but in Transbaikal the sheep are large, and their wool is coarse, thick, and of medium length. In Amur the absence of dry pasturage is unfavourable to sheep; such as are bred are of Mongolian stock.

Bees are kept with much success in the Achinsk and Minusinsk districts of Yeniseisk, where there are over 45,000 hives, and immigrants from Little Russia have introduced the latest methods. In the Amur Province bee-keeping, though still on a small scale, is growing in importance; the climate and vegetation are very favourable to it, but its development is retarded by the fact that the peasants find other work more profitable. In Primorsk, especially round Nikolsk Ussuriski, it is very remunerative.

There are products derived from wild animals which economically are of great importance to Siberia. Chief of these is *fur*. The principal fur animals are sable, kolonok, marten, ermine, glutton, skunk, lynx, otter, fox (Arctic, silver, and red), bear, squirrel, and marmot. The sables, the fur of which was the regular form of *yassak* (tribute), are retiring more and more to inaccessible forests and are seriously decreasing in numbers; they are found up to 68° N. lat., the best being in the Vitim and Olekma regions, near Nertchinsk, and by the headwaters of the Amgun and the Zeya, while white sables, which are very rare and valuable, are found in the Barguzin region. An order was made by the Russian Government that from February 1, 1913, to October 15, 1916, no sables should be killed nor any sable fur sold throughout Siberia. The kolonok is used as a substitute for the sable, especially to supply artists' "sable" brushes. The ermine is valuable, but is becoming rare. Squirrels' skins are sold in enormous quantities, and are used for a great variety of articles; in Transbaikalia three million squirrels are killed annually. The chief fur fairs of Eastern Siberia are held at the confluences of the chief tributaries of the Amur, e.g. at Albazin and Blagoveschensk. There is a notable fur fair at Nikolaevsk, and in the far north-east is the Anyui fair, once very important but less so now, as the Chukchis barter most of their furs with the Americans on Bering Sea. The Russian traders at the Anyui fair all come from Yakutsk, where the chief fur market of the north is held in July. At this market in 1913 there were sold

70,000 squirrel-skins, 21,000 fox-skins, 10,000 skins of ermine, and 100 of black bear. Trade in sable was by this time prohibited, but in 1905 the sable skins sold at Yakutsk numbered 3000.

The tiger is hunted in winter on the lower Amur. In some years 120 or more are killed. The bile, heart, and claws are sold to the Chinese, who make from them a powder, which is supposed to produce courage.

Another product worthy of notice is *fossil ivory* derived from mammoth tusks, which are found principally along the Arctic Ocean. The New Siberia Islands are the most prolific source of supply, and Yakutsk is the chief market for the ivory, which is little inferior to ordinary ivory. In 1913 nearly 20 tons were collected, the price at Yakutsk being rather more than 3s. per pound.

(b) *Methods of Cultivation*

The Siberian peasant, like the peasant of European Russia, is not very progressive or ready to assimilate new ideas; but since the growth of individual ownership agricultural methods have improved. Of recent years there has been a better market for agricultural machinery, and fertilizers are more widely employed; though it is only in Transbaikal that the value of manure is understood. Before the war, it was intended to establish an agricultural school at Nikolsk Ussuriski, the centre of a prosperous farming region.

It is customary to sow land for two or three years and then to leave it fallow for a year, after which it is sown again for one or two years, the process being repeated till it is clear that the land needs a rest. The rotation of crops followed varies in different districts; but it is usual to sow first the more exhausting grains, such as wheat and rye, and to follow these with barley and oats.

Among the native tribes of Siberia agriculture has made but little headway. The tribes of the north are too busy fishing during the summer to attend to anything so unremunerative as the cultivation of corn and vegetables. They seem to be little impressed by the

industrious Skoptsi colonists in their midst, who import modern agricultural machinery, grow many kinds of grain, and own some steam flour-mills.

(c) *Forestry*

The area covered by forest in Asiatic Russia is enormous, but the timber industry is relatively inconsiderable. The chief reason for this is the inadequacy of the means of communication and transport. Most of the timber in easily accessible regions has been cut, and hitherto it has not paid to exploit the forests of the more remote parts.

Before the war about three-quarters of the forest land of Asiatic Russia was owned by the State. The State forests were divided into forestry districts, which each on an average exceeded in size the wooded area of all Great Britain, and these districts were divided into allotments. The forests of Central and Eastern Siberia have been very imperfectly surveyed.

The *taiga*, or coniferous forest, begins where the *tundra* ends; the forests never reach the north coast, but extend further northward along the river-valleys than elsewhere. Southwards the *taiga* extends to the Mongolian frontier. In most of the forests of Siberia, even outside the *taiga* region, coniferous trees predominate. The trees in the forests of Eastern Siberia are of much the same species as those in the forests of Western Siberia, but in general are of less luxuriant growth. The forests are very uniform in character from the Yenisei basin to the region of the Amur; the most abundant trees are the Siberian fir and the eastern larch, with the so-called Siberian cedar and the Scotch fir; while the spruce and the Norway spruce occur as far east as the Lena, in the upper valley of which the trees grow to a greater height than elsewhere in this country. Along the upper and middle Amur deciduous trees are more frequent than conifers, but along its lower course the latter prevail, the Siberian cedar being replaced here by the white cedar or Manchu pine (*Pinus mandshurica*). The Sikhota Alin range and Primorsk generally are wooded, in the north

with conifers, in the south largely with deciduous trees. In the forests of Kamchatka the trees are more widely spaced; the Siberian fir and "cedar" are the commonest varieties, but a few deciduous species occur.

The Provinces of Yeniseisk, Irkutsk, Transbaikal, and Yakutsk export little timber, but consume a great deal themselves—in fact the supplies of timber in the neighbourhood of the large towns and chief mining centres are largely exhausted. The building of the railway has greatly increased consumption, and in many places the price of firewood has doubled. The tree most used is the larch, fine woods of which are found along the middle reaches of the Yenisei.

It is only in the Amur and Primorsk Provinces that the exploitation of the forests has the character of an industry. A report for 1913 gave the total area of forest land in the eastern provinces as 110,052,000 acres, of which 30,840,000 were in Amur, and 71,463,000 in Primorsk. In Amur five-sixths of the forest area belonged to the Government, and most of the remainder to the Cossacks; in Primorsk ten-elevenths belonged to the State. The forests generally lie along the sea-coast or the river valleys; the best timber districts are Nikolaevsk with 33,000,000 acres, Khabarovsk with 14,245,000 acres, and the Lower Amur with 12,150,000 acres. The Government forests were under the Department of Domains, whose headquarters were at Khabarovsk.

A royalty is levied on all timber sold, the charge varying for the different kinds of wood. In 1914 the same rates applied to all parts of the two provinces, but formerly concessions that lay more than $6\frac{1}{2}$ miles from a railway paid at a lower rate. Local consumption is large, and the railways, steamers, and mining camps take an ever-increasing quantity of timber. There is an increased demand for wood for fish-boxes. There is also a considerable export trade, mainly through Vladivostok and Imperatorskaya Bay. Before the war most of the wood sent overseas was taken by Australia, which relied on Eastern Siberia for fir and larch. A good deal of white "cedar" was also shipped, mainly to the

United Kingdom, and Japan purchased large quantities of aspen for matches. Regarded as a whole, the position and prospects of the timber industry in the far east of Siberia seem fairly satisfactory, though it is to be regretted that no systematic efforts have been made to replace the trees felled.

(d) *Land Tenure*

Ninety-six per cent. of the land in Siberia belongs to the State. Only in the Amur territory is it ever purchased. Grants to settlers are usually made on the basis of 8–15 *desyatines* (21–40 acres) for each male member of a family. In the last years before the war the Government was doing all that was possible for the encouragement of settlers, offering land for occupation in the remoter east and advancing loans to new settlers whose land was difficult to clear. The occupation of land conferred special privileges on the settlers. For the first five years they were exempt from taxation and for the next five they paid only half the ordinary amount; settlers above the age of 18 had their military service postponed for three years or even longer, while Russian colonists in the unattractive country of the lower valleys of the Lena and Yenisei were altogether exempted. Land was conveyed to a settler by letters of allotment; it remained State property, but was to be held for the perpetual benefit of the settler, who had no right to sell or mortgage it.

The Cossacks, who held their land by military service, had privileges peculiar to themselves; in Central Siberia they had 60 acres of land per man, and in the Amur and Primorsk Provinces 100 acres. But, as was pointed out above (p. 54), it is difficult for them to combine the functions of soldiers and settlers.

Political prisoners were allowed to hold land and earn wages under certain conditions.

Besides the land to which new settlers were invited, there is throughout Siberia a great deal of village-land which is allocated by the peasant assembly (*mir*) of the village. This body assigns to each family a hut and yard

and a suitable amount of land, averaging about 40 acres, taking care to include a fair proportion of arable, pasture, and forest land. A certain area is always set aside for common pasturage. A new division is made every 15 years. Since 1906 a peasant has been able to hold land in perpetuity. The system of village-tenure of land is naturally of greater importance in Western Siberia than in the East, since the western parts have been settled much longer.

(3) FISHING AND OTHER MARINE INDUSTRIES

Fishing is of great importance in most parts of Eastern Siberia. The principal fisheries are those of the lower Yenisei, Lake Baikal, the Lena and other rivers of the Yakutsk Government, the Okhotsk and Kamchatka coasts, the Amur and its estuary, and the coast of the Ussuri district, known as the South-West fishery.

(1) In the lower Yenisei about 15 varieties are caught for wholesale trade, including the sturgeon, sterlet, *muksun*, *nyelma*, and *omul*. The fish are mostly taken by means of seines. Very primitive methods are followed in preparing both fish and caviare. The absence of good communications largely counteracts the natural advantages of this fishery, the market of which is almost entirely confined to the Yeniseisk Government, though a few of the fish go as far as Tomsk and Irkutsk. There is no canning, and the attempt to send frozen fish by rail to Russia has been a failure, despite the demand for such supplies. The annual value of the fish caught on the whole of the Yenisei is about £80,000.

(2) The Baikal fishery includes Lake Baikal, the lower waters of the rivers that run into it, and the lagoon-like lakes (*sori*) that fringe it. The chief fish caught is the *omul*, of which 500,000 (to the value of £20,000) are taken annually; the other species caught include the sturgeon, *chir*, gwyniad, grayling, roach, crucian carp, and burbot. There is also a fish peculiar to the lake, called *golomyanka*. Nets and bag-nets are used in Lake Baikal, where the fishing is on a large scale. Bag-netting is carried out by small companies; there are

also net associations, each member of which supplies a settled number of fishing nets and ropes.

(3) The Yakutsk fisheries are of little industrial significance owing to their lack of good communications, but fishing is an important means of livelihood for the inhabitants of the province. It may be hoped that the Kolima fishers will soon find an outside market for their fish, as since 1911 their district has been in regular communication by steamer with Vladivostok. For the Lena fisheries the only market at present is the adjacent mining district. Among the fish caught in the Yakutsk rivers are sturgeon, sterlet, *muksun*, *nyelma*, *chir*, bass, herring, crucian carp, and burbot. Fishing tackle and methods of preparation are inadequate; and caviare is often thrown away, as the natives do not like it.

(4) In the Okhotsk-Kamchatka fisheries the Russians are exposed to strong competition from the Japanese, who until 1907 had the fishing trade of these parts almost entirely in their hands. A convention made in that year excluded them from certain bays and river mouths, but a great deal of the fishing is still under Japanese control and the market for the fish is largely Japanese. The trade for cod about the Commander Islands, however, is almost entirely in the hands of Americans, who salt fish for Japanese and Chinese consumption. The economic importance of the Okhotsk-Kamchatka fisheries is derived principally from the salmon which abound in this region, and are caught in very large quantities. There is some export of salmon, mainly to Japan.

A marine industry of some note in the seas off Kamchatka is the hunting of the sea-bear or fur-seal. The centre of this is the Commander Islands. During the last twenty-five years the industry has greatly diminished because of immoderate fishing in the open seas. In 1890 no less than 55,435 fur-seals reached the market from these waters, but in 1911 only 200. In 1912 a Russian ordinance against killing fur-seals for the next five years came into force; and by the Washington International Commission it was forbidden to hunt them in the

open sea for 15 years. It is hoped that these measures will result in the regeneration of the breed.

(5) The Amur fisheries comprise the lower waters of the Amur and the Pacific from the Udsch district to the Gulf of Tartary. They are divided into four districts—Nikolaevsk, the most important; Chirakhshi, north of the mouth of the Amur; Prong, south of the Amur, which used to have a considerable trade with Germany; and Sakhalin, comprising most of the coasts and waters of the Russian part of that island. The chief buyers in the Amur fisheries used to be the Japanese, but they have lost their predominance by trying to force down prices. The catch in 1910 was so good that large quantities of fish were sent to Europe, and the business thus inaugurated has lasted. The principal fish taken are salmon (*keta* and *gorbusha*) and sturgeon, the latter being in serious danger of extermination. A moderate estimate gives 500,000 lb. of sturgeon as a season's catch, but the consumption is almost entirely local. In 1910 the aggregate weight of the salmon taken amounted to over 38,000,000 lb. There is a growing trade in salmon caviare and some production of train-oil made from fish liver.

In 1912, 63 per cent. of the total catch of the Amur fisheries was shipped from Nikolaevsk. In the last years before the war increasing quantities were sent by rail westward, some of the fish thus dispatched finding a market in European Russia.

(6) The South-West fishery extends from Cape Lazarev at the south of the Amur estuary to the boundary of Korea. North of Peter the Great Bay the industry is principally in Japanese hands, but in the bay itself fishing rights are reserved to the Russians, and the proximity of a good market in Vladivostok has greatly stimulated Russian industry. The chief fish caught in this region is herring; but salmon of the *gorbusha* and *keta* varieties are also taken in large numbers.

Of some economic importance is the trepang or *bêche-de-mer* which is found on rocky bottoms along the whole coast of Primorsk, but is especially common

in the neighbourhood of Peter the Great Bay. The Chinese spear or net it, and the average catch for a fisherman is about 120 a day. In 1913, about 9 tons were exported from Vladivostok. The price there is about $8\frac{1}{2}d.$ per lb., but in China it is nearly twice as much. Crab-fishing is also remunerative. In 1910 about 200 tons of dried crabs were sent from the south-west fishery to China and Korea.

(4) MINERALS

The mineral resources of Eastern Siberia, though very imperfectly explored, are known to be great. They will be a means of attracting much-needed capital, especially to the remoter parts of the country. Gold-mining has done more to open up the country than any emigration agency, and has been responsible for the extraordinary rapidity with which big towns like Bodaibo and Zeya Pristan have grown up.

(a) *Gold*

Gold has been worked more than any other mineral of Eastern Siberia. The principal centres of the gold-mining industry are the lands formerly belonging to the Imperial Cabinet in the Barguzinsk and Nertchinsk districts of Transbaikal, the Zeya and Bureya basins and their neighbourhood, the Amgun basin and the neighbourhood of Lake Chlya, and the Olekminsk and Vitim gold-fields of the Lena. The gold worked is almost entirely alluvial. As the more accessible placers become exhausted there is a tendency for large concerns to replace small ones. Dredgers are needed for the complete success of the industry, but few Russian engineers and workmen have so much as seen a dredger, and many deposits which might be profitably worked have consequently been abandoned. The latest methods of working hydraulic sluices are unknown in Siberia, where the climate is unfavourable to their use. During the years 1908–1913 the output of gold in Siberia declined, the worst year being 1912, when there was a serious strike at the Lenskoi works in Bodaibo. The official estimates

(which have to be accepted with caution) of the amounts received in 1910-11 at some of the chief laboratories in Eastern Siberia were as follows:

| | 1910 | 1911 |
|----------------|----------|----------|
| | lb. troy | lb. troy |
| Blagoveschensk | 21,548.7 | 19,012.5 |
| Bodaibo | 39,153.6 | 36,251.1 |
| Krasnoyarsk | 2,889.0 | 1,525.4 |
| Nikolaevsk | 4,140.9 | 5,098.5 |
| Zeya Pristan | — | 2,615.4 |

Gold-mining in Siberia is much impeded by the climate. It is possible only in summer, and most of the gold is in placers which never really thaw. Further, in a dry summer there is not sufficient water for the efficient conduct of the industry; in a wet one floods hinder the work. Drawbacks of another order are the sparseness of the population and the inadequacy of means of communication. The conditions have favoured the rise of a large illicit trade in gold, which is carried on mainly by Chinese and Koreans.

The best results are obtained by undertakings with considerable capital and modern machinery, such as the Lenskoi and Orsk Companies. American engineers are widely employed, even by British firms, for British engineers have commonly gained their experience of gold-mining in South Africa, and are ignorant of the conditions in Siberia.

Gold is found in all the provinces of Eastern Siberia. The chief localities where it exists are recorded below under the heads of the several provinces.

Yeniseisk. There are several mines in the south-west near the Abakan. Of these the richest is the Bogom-Darovanui, which is fitted with thoroughly up-to-date machinery and is one of the few profitable reef gold mines in Siberia; it produces about 17,100 oz. troy of gold annually. The introduction of dredgers has revived the gold industry in the Yenisei basin; the southern portion of this field lies between the Pit and the Angara rivers, the northern in the upper basins of the Teya and the Kalami, tributaries of the Stony Tunguska. The field is remote

and its development has been much retarded by the cost of transporting its produce.

Irkutsk. By far the most important mining district in this province is Bodaibo, whence are produced some 13 tons of gold a year, a quarter of the output of the former Russian Empire. The Lenskoi Company, controlled by British interests, has a virtual monopoly. The gold is alluvial; the pay-gravel lies from 50 to 150 ft. below the surface, and the streaks are from 4 ft. 8 ins. to 9 ft. 4 ins. thick. The placers can only be worked with considerable capital. The yield of gold is from 82 to 205 grains to the ton of gravel. Good machinery is used, and about 4000 workmen are employed. Transport facilities are poor, but a light railway has been built from Bodaibo to the Vitim. The Government assaying and gold-smelting laboratory for the Vitim-Olekminsk district is at Bodaibo. Most of the valleys of the Vitim's tributaries are thought to contain gold, but they have been little explored.

Yakutsk. The Olekminsk mines, grouped for administrative purposes with those of the Vitim, were formerly the richest in Siberia. The Great Patom river, along which lie the richest deposits on the left bank of the Lena, is said to have yielded 14,000 oz. troy of gold in 1911, and all the land on its banks has been staked out in claims. Gold is found on the upper reaches of the Vilyui and its tributaries. The gold-yield at Chodinski, some 80 or 90 miles above Krestyatskaya, is reported to be large. Gold also occurs on the Nai, a tributary of the Aldan. The mining in both Irkutsk and Yakutsk would be much stimulated by the construction of the Lena railway (see p. 47).

Transbaikal. The output of this province was about 171,000 oz. troy in 1911. The two important centres are Barguzinsk and Nerchinsk. The production of the former field, which lies in the Barguzin valley, and near the sources of the Vitim, has greatly declined in recent years. Belgian engineers are here trying the experiment of thawing the ground by a process of steam-heating. Gold is found generally on the Government estates of

the Nerchinsk district except in the north-east and south-east. Owing to the climate attempts to introduce modern machinery into this field have not been successful. British companies have lately been prospecting and experimenting in the district with a view to applying for leases.

Amur. The Amur gold fields are of much greater extent than those of the Lena. Alluvial gold is found in the basins of the Zeya, the Bureya, and their tributaries. New deposits were discovered when the western section of the Amur Railway was being constructed. The Upper Amur Company in 1908 worked some 50 gold fields, and owned as many more. The Lenskoi Company proposes to extend its activities to this province. The gold is so fine in this region that only the best machinery can make mining profitable. Blagoveschensk and Zeya Pristan have Government laboratories.

Primorsk. The Amgun mines near Kerlinski were long worked at a loss, but a new dredger has been recently installed. The Orsk mines, owned by a British company, on Lake Chlya, near Nikolaevsk, are the most successful in the neighbourhood; even during the war the profits therefrom have increased. In 1912 there were 21 placers being worked, and the mines were responsible for a quarter of the value of the gold produced in the province. In the Ussuri district Chinese and Koreans have exhausted the more accessible deposits, but recently fresh placers have been discovered on the Iman which are estimated to yield £1 per ton of gravel. There is said to be a gold-bearing belt for some 120 miles along the coast between the Ud and Ayan. The Government laboratory is at Nikolaevsk.

Kamchatka. Gold has been found on the upper reaches of the Oblerkovina. Rich deposits are reported to exist on the river Volshaya in the Anadyr region and near Cape Dejneva in the Chukchi peninsula. The Volshaya mines have remained idle since 1907, but the deposits are said to contain 240 grains of ore to the ton of gravel and might be profitably worked, though the region is remote and woodless.

(b) Minerals other than Gold

Even apart from gold, the mineral wealth of Siberia is great and varied; but nothing more than a few summary notes on the more important deposits can here be attempted.

Antimony is found in several mines in Yeniseisk and along one or two rivers in the Minusinsk district of that province. In Transbaikal a spring near the Kadainskoe silver mines is known as the antimony spring. There are deposits of antimony on the mountains near Zagilovo in Amur, the veins reaching a thickness of $3\frac{1}{2}$ ft.

Asbestos is worked in Yeniseisk on the river Kamisha, about 50 miles from Minusinsk; it lies there in dolomite veins up to $4\frac{1}{2}$ ft. in width, but only one-seventh is of commercial value. It is also found on the Karagan. In Irkutsk it is worked near the Angara, where it is of good quality. On the Mongol-Dabansk gold field, now exhausted, 75 miles from Zimanskoe, there are very rich asbestos and mica mines. Asbestos is also found near Shilkinsk and in the Nertchinsk district of Transbaikal.

Coal. There are large deposits of coal in Eastern Siberia, but most of it is only moderately good. There are great obstacles in the way of its satisfactory exploitation, such as the remoteness of coal markets, the undeveloped character of manufacturing industries in Siberia, and the abundance of timber for fuel. The railways are at present the chief consumers of Siberian coal.

In Yeniseisk there are deposits near Dudnika and in the region of Minusinsk, and also, it is said, in the valleys of the Lower Tunguska and the Chulim. In Irkutsk there are near Cheremorskoe important beds which annually produce 5,000,000 tons, mostly of lignite; the beds are very extensive, lying at a depth of not more than 98 feet, the seams being horizontal with an average thickness of 7 feet. In Yakutsk coal has been found along the middle course of the Lena in a number of

places, of which Bulun is the most northerly. West of the Lena, the deposits extend beyond the mouth of the Markha, a tributary of the Vilyui; east of it they stretch along the Aldan beyond the mouth of the Maya. The coal is of recent origin, and is not worked. In Transbaikal about 1,500,000 tons are produced annually from deposits along the railway, but the quality is inferior, giving out only half the heat of the Cheremorskoe coal. There are outcrops near the lake, and a seam near Peremuaya on its south-eastern shore is worked for the supply of fuel to the lake steamers, but the output is small. Coal is also found in the valleys of several rivers, e.g. the Ud, the Ingoda (in which at Novaya Kuka, only 4 miles from the railway, there is coal of good quality), the Shilka, and the Argun; the deposits in the valley of the last river have not been explored but may prove important, as the district is timberless. In the Amur Province extensive deposits have been located along the Amur River and the Amur railway, notably near Molinovka. In Primorsk there is much coal, but mostly of poor quality; 10 deposits are being worked. Of outstanding importance are a large lignite mine near Vladivostok, which yields more than 200,000 tons for the railway each year, a couple of small mines on Amur Bay, and the Government mines at Suchan. The last are worked at unnecessary expense. They are connected with the Ussuri railway by a branch 100 miles long, but this cannot carry more than 133,000 tons at most in the year. The output of the mines rose from 105,496 tons in 1908 to 206,783 in 1912. The coal is not very good for steam-raising, and its calorific value is rather low. Three kinds are obtained—bituminous, anthracite, and coking. It has been estimated that the Mongugai coal field (12 miles inland from Amur Bay) contains some 5,000,000 tons of good anthracite, very much like Welsh coal, and with improved transport facilities this coal could replace the Japanese coal at present imported at Vladivostok. There are said to be traces of brown coal along the Primorsk coast as far north as De Castries Bay. In Kamchatka there is a large deposit of brown

coal at Baroness Korf Bay, and similar coal is found on the shores of Gizhiga and Penzhina Bays and along the west coast of the Kamchatka peninsula.

Copper has been found in the Minusinsk district of Yeniseisk, near Verkhne Udinsk in Transbaikalia, and, in poor veins, in the Onon and Argun basins in the same province. In Primorsk there are deposits near Vladivostok, near Konstantinovka on the Suifun, around Jigit Bay, and in the zinc and lead mines near Tyutikha Bay. Copper ore has also been discovered near the mouth of the Kolima, at the confluence of the Big and the Lena, and in Kamchatka.

Graphite is nowhere exploited to any extent, but there is hard and clean graphite in considerable quantities near Turukhansk on the Yenisei, in the Irkut valley, on the Lower Tunguska, near the river Bukhalova, at various points in the Amur basin, and near Cape Dejneva.

Iron exists in large quantities in Eastern Siberia, but it has been exploited with only small success. Even the Nikolaevsk foundry, between Tulun and the Lena, once the biggest in the country, has been compelled to close down, though in the neighbourhood of excellent ore. There is iron in several parts of the valleys of the Yenisei and some of its tributaries, such as the Abakan and the Angara, in the valleys of the Upper Lena and the Kirenga, near Misovsk on Lake Baikal, and on the Tsagankhuntei range, west of the Khilok valley. There are several deposits in the Nertchinsk district, but little is known of them; the iron works of Petrovski Zarod are, however, supplied from the Bal-yazinsk deposit of magnetic ore, and there are other large supplies of magnetic ore quite untouched in this region. There is abundant iron round Yakutsk; it is also found in the region of the Vilyui, below Zhigansk, near the confluence of the Samara and the Amur, near Nikolaevsk, round Olgi and Vladimir Bays, and in Kamchatka. From the commercial standpoint, the most promising of these are the deposits near Olgi and Vladimir Bays. Irregularities of the compass indicate

the presence of iron in large quantities at other points of the Primorsk coast. Now that the export of ore is no longer prohibited there should be a good market for iron ore in Japan. Before the war Germany was the principal source of the pig-iron used in Eastern Siberia.

Lead. The principal deposit of lead occurs in conjunction with zinc (see *infra*).

Mica occurs in the Krasnoyarsk region of Yeniseisk, where, however, it is not systematically worked. It is also found at Kandakoro on the river Tasyeeva, a tributary of the Angara, and on the river Kan near the mouth of the Varga. The deposits in the Mongol-Dabansk region were mentioned above, in connection with asbestos. There is reported to be mica in the Nijne Udinsk district and on the Mama, a tributary of the Vitim. On the southern shore of Lake Baikal the quality of the mica is good.

Petroleum is obtained from a belt of rocks, about two-thirds of a mile wide, along the shores of Lake Baikal, and there is an oil-spring at the bottom of the lake opposite the mouth of the Turka.

Platinum is found in Yeniseisk in the gold mines of the Chubuli basin, in Irkutsk near the Vitim gold field, in Amur on the Uni Bolski, and in Yakutsk on the Maya, where the natives are said to use it for bullets. Up to 1915 it was sent abroad to be refined, but in that year, in order to encourage the erection of refineries in Siberia, a tax of 15 per cent. *ad valorem* was imposed on unrefined platinum exported from the country.

Salt is abundant in Eastern Siberia, though the best deposits of rock salt and the best springs lie in very remote districts. Most of the salt is obtained by evaporation from salt-pans. In Yeniseisk 7500 tons a year are produced in this way near Abakanskoe. In Irkutsk at Ust Kutscoe, at the confluence of the Kuta and the Lena, there is a most important salt-mine, with a refinery; 9400 tons are produced annually; but owing to the cost of fuel work is carried on only in summer, and the slightest reduction in the price of salt would render

the undertaking unprofitable. In Transbaikal the salt industry flourishes, especially near Selenginsk, Kirauski, and Troitskosavsk, and in the south there is a number of brackish lakes which are successfully exploited. There are very large deposits of excellent rock salt in the province of Yakutsk between the Vilyui and its right-hand tributaries near Suntar, but owing to the absence of means of communication it has no market.

Silver is found in the south-eastern portion of the Nerchinsk Government lands, where 500 deposits of silver-lead are known to exist, the richest being at Kadainskoe on a tributary of the Upper Argun. There is also silver in the zinc mines of Tyutikha Bay in Primorsk.

Tin of good quality has been found between the Onon and Ingoda, but is not worked; this seems to be a genuine tin district, and the Government, it was said, intended to instal here the first tin-smelting works in Siberia.

Zinc and lead. The mines near Tyutikha Bay have been successful. In 1911 the output was 24,030 tons of zinc ore, 4451 tons of silver-lead ore, and 72 tons of copper ore. In 1912 25,000 tons of zinc were sent to Europe for smelting, but since then a smelting furnace has been built on the spot. The ore contains nearly 50 per cent. of zinc, a little silver, and about 5 per cent. of copper. New deposits have recently been located by the Tyutikha Company near Imperatorskaya Bay. There is said to be zinc in Yakutsk Province. Lead ore has been found at Orlensk in the Kirensk district, where the content is said to be 81.55 of pure lead.

Other minerals. *Cinnabar* occurs in the Bogoslovski district, on the Ildekan, in the Nertchinsk district, in the Amga basin, and in Kamchatka, but it has nowhere been worked. *Radium* has been found in Yeniseisk on the Ayakhta, a tributary of the Pit. Deposits of *iridium*, *palladium*, and *osmium* are said to exist in Kamchatka. *Thorianite* has been found in the Nertchinsk district. *Wolfram* occurs in rich deposits near Klyuchavskaya on the Ingoda on land belonging to the Transbaikal treasury.

There is *manganese* in the Angara valley, *molybdenum* in Transbaikal, and *osmiridium* in the same province. *Marble* is found in many parts of the country, notably on the Upper Yenisei, around the southern and eastern shores of Lake Baikal, in the basins of the Onon, the Argun, and the Zeya, and near Olgi Bay, in the Primorsk province, where there is a mountain said to consist almost entirely of marble. Good *building stone*, *lime*, and common *clays* occur almost everywhere. *Kaolin* and *white clay* for porcelain are worked in several places in the Irkutsk Province, where *fire-clay* and fire-resisting *sandstone* are also obtained. *Felspar* and *quartz* for glass-making are derived from various localities in the Baikal Mountains.

Many kinds of *precious stones* are found in Eastern Siberia. The richest source is the Adun-Chelonsk mountain, near the confluence of the Onon and the Onon-Borzya, where, among other stones, are found topaz, beryl, aquamarine, and tourmaline. Fine topazes also come from a district between the Unda, a tributary of the Shilka, and the Urulyungi, a tributary of the Argun. Chalcedony occurs in the Markha and other affluents of the Vilyui. There are garnets along some of the rivers flowing into Lake Baikal and on the Onon, some 50 miles from Nertchinsk. Lapis-lazuli is common in the provinces of Irkutsk and Transbaikal. The basins of the Byelaya and some of its tributaries contain nephrite, which is highly prized by the Chinese. Opals are found in certain tributaries of the Vilyui and fine rubies on the eastern shores of Lake Baikal.

Glauber's salt (sulphate of sodium) is produced from extensive deposits in the Minusinsk region of Yeniseisk, and from the Doroninsk lakes in the Barguzinsk district of Transbaikal.

Mineral springs, most of them cold, are numerous in Transbaikal, especially near the Shilka and in the Chita district. They have been very little exploited. There are sulphur springs near Parsheba on the Middle Lena. In Kamchatka there are many mineral springs, and their medicinal properties are known to the natives.

(5) MANUFACTURES

A characteristic feature of the economic life of European Russia and Western Siberia is the *kustarni* (peasant or cottage) industry; but this is of much less importance in Eastern Siberia, and the further east the province, the more insignificant does it become. The standard of workmanship in Eastern Siberia, moreover, is not as high as in the other parts of the former Russian Empire. Of the *kustarni* industries in the Governments of Yeniseisk and Irkutsk the first in importance, especially near the larger towns, is woodwork of various kinds; next comes the dressing of sheep-skins and wool products; and after that, but of much less note, are weaving and metal-work. About Yeniseisk there is some pottery manufacture and near Irkutsk bootmaking. In Transbaikalian coopers' work is of some importance. In Amur and Primorsk there are hardly any cottage industries, but before the war the Government tried to promote them, sending out instructors and in the year 1914 allocating £23,000 to their promotion.

There are factories in the bigger towns, but it is difficult to draw the line between factory industry and *kustarni* industry, as at many so-called factories the operatives are merely an assemblage of *kustarni* workers. In the Far East the managers of factories are usually foreigners, while the Chinese supply most of the skilled, the Koreans most of the unskilled, labour. The chief goods manufactured in the towns are bricks, glass, metal castings, pottery, soap, and tallow. Tanning is of some importance, and there are various industries concerned with timber and wood-products.

Brick factories, often worked by steam, are fairly numerous; some of the most important are at Krasnoyarsk and Irkutsk. At Nijne Udinsk there are *cement* works, one of which produces about 50 tons annually. Two others in Transbaikalia manufacture for local needs, and one was established in 1907 near the Ussuri Railway at the cost of £100,000.

The better kinds of *glass* are imported, and only

bottle-glass, window-glass, and rough table-ware are manufactured in Eastern Siberia. The chief glass-factory is 28 miles west of Krasnoyarsk; it was founded in 1840, and employed normally 400 and in special seasons 800 workmen, who before the war were Europeans, not Siberians. There are also glass-factories in Minusinsk, Irkutsk, and Nikolsk Ussuriski, and one in the Amur Province.

Leather is made at Irkutsk, and there are also important tanneries at Ussolye, not far away. These supply considerable quantities of leather to the Lena gold field.

The principal centre of *metal-working* is Blagoveschensk, where there are two iron and five copper foundries. Machinery is made at Khabarovsk and Nikolsk Ussuriski. There is a nail factory at Irkutsk.

Pottery is made at important works at Pelovinnaya on the Byelaya, where there is good clay. There is a large china and porcelain factory at Kharta, 90 miles from Irkutsk; the ware produced is of a somewhat cheap quality and destined for use in Siberia.

Soap of the commonest kind is manufactured at Blagoveschensk and several other places to supply local wants. *Tallow candles* are made in many towns. Candles of the better sorts are commonly imported, but there is a factory at Krasnoyarsk which manufactures wax candles for ecclesiastical use.

The *wood* of the Siberian forests gives rise to several industries. Saw mills are numerous. There are many at Irkutsk, which obtain timber from the region of Lake Baikal and the valleys of the Angara and the Irkut. Blagoveschensk, too, has a number of prosperous saw-mills, and is the centre of the timber trade of the Amur basin. In the Amur and Primorsk Provinces, together with Sakhalin, the saw-mills numbered 62 in 1912, and had an annual output of 2,050,000 logs.

Other industries concerned with wood deserve notice. Near Vladivostok the manufacture of three-ply and veneer is steadily increasing. At Spasskaya, on the Ussuri Railway, there is a factory for the chemical treatment of wood and the production of turpentine, tar,

wood-alcohol, vinegar, resin, and potash. Boat-building is carried on at Minusinsk, and carriage-building at Irkutsk.

A few of the other industrial undertakings of Eastern Siberia may be summarily mentioned. Irkutsk has ten printing works, two steam sausage-factories, and factories which respectively make yeast, pearl-barley, and cigarette-cases. Wool-dressing is also carried on in the town. Khabarovsk has a cigarette-case factory, and Minusinsk a rope factory, but rope-making is mainly a *kustarni* industry.

(C) COMMERCE

(1) DOMESTIC

(a) *Principal Branches of Trade*

The domestic commerce of Eastern Siberia calls for little comment. As yet it is simple and primitive, for among the inhabitants only the Chinese show any natural turn for trade. As was indicated in the previous section, the trade in native products is small and, for the most part, local. Timber, leather, and fish, it is true, are in considerable demand in markets far from the source of supply; but even in such commodities the trade is of small account by European standards. Until the country is provided with better means of communication, little development of its internal commerce can be expected.

The distribution of imported goods is mainly controlled by a few large firms, several of them founded by foreigners, which have stores in the more important centres, and, besides dealing in imported commodities, absorb a large proportion of the local trade. This centralization is the natural outcome of existing conditions, but it is to be hoped that, as the country develops, its commerce will experience the stimulus of a more healthy competition.

(b) *Towns, Markets, and Fairs*

The most important town in Eastern Siberia is *Irkutsk*, situated a short distance to the west of Lake Baikal on the river Angara. It has about 130,000 inhabitants and is the principal trading centre for Middle Siberia. The chief articles dealt in are fur, timber, and leather. *Vladivostok*, with more than 90,000 inhabitants, stands next to Irkutsk in population. It has already been noticed (p. 51) and some further particulars about its trade are given below (p. 86). Another seaport town, *Nikolaevsk*, has also been treated above (p. 50). *Blagoveschensk* has a considerable trade owing to its position on the Amur and its nearness to gold fields. It is particularly important as a centre of the timber trade. A town which has sprung rapidly into prominence is *Khabarovsk*, which owes its rise to the needs of the surrounding mining areas.

Other centres are *Krasnoyarsk*, *Zeya Pristan*, a gold-mining town, and *Pronge*, at the mouth of the Amur, which developed a considerable trade in fish with Germany.

Although not actually in Siberia, the town of Kharbin (*Harbin*), owing to its position on the shortest railway route from Europe to Vladivostok, is of much importance in Siberian commerce. Details of its trade are to be found in *Manchuria*, No. 69 of this series, p. 58.

A number of fairs are held in Siberia, mainly for the disposal of furs. The most notable of these fur fairs are mentioned above (p. 63), and the only other fair calling for remark is that of Verkhne Udinsk, which is held annually from January 18 to February 2 for trade in manufactured goods, groceries, and victuals.

(c) *Organizations to promote Trade and Commerce*

Vladivostok has a Chamber of Commerce, but this seems to be the only one in Eastern Siberia. Of other organizations for the promotion of trade there are apparently none except a few co-operative societies. The development and multiplication of these would be

of vast benefit to the country, whose progress has hitherto been retarded by the anarchy prevailing in its industry and commerce.

(d) *Foreign Interests*

The foreign countries with the greatest economic interests in Eastern Siberia are the United States and Canada. This is partly due to the fact that in many parts of Siberia conditions are similar to those in the prairie region of America. The trade in agricultural machinery is almost entirely in American hands, and citizens of the United States are conspicuous in many industries and in all branches of commerce.

The British concerns in Eastern Siberia are mostly firms long-established in China which in recent years have extended their operations northward.

As was mentioned above, the distribution of the imports of Eastern Siberia is largely in foreign hands. Before the war the concerns engaged in this commerce were mostly American, British, or German. Some of them were big corporations, with large capital.

(e) *Economic Penetration*

It will be seen that Eastern Siberia is in some danger of becoming economically dependent on foreigners of European or American nationality. Such a process, however, must be slow, and might be checked if Eastern Siberia obtained a wise and stable government. Far more serious is the penetration of the country by the Chinese. The question is discussed above (pp. 54-56).

(2) FOREIGN

(a) *Exports*

There are no published statistics of the foreign trade of separate portions of the Russian Empire, and it is impossible to make even a rough estimate of the value of the exports and imports of Eastern Siberia. There are, it is true, certain figures for Vladivostok, through which nearly all the overseas trade of Eastern Siberia passes; but as Vladivostok is also the port for a great part of

Manchuria, these statistics are not of much value for the purposes of this book.

In 1913 the total weight of the goods exported and imported through Vladivostok was 1,700,000 tons. Figures showing the value of this trade are unfortunately not available. The principal exports were soya beans, timber, and fish. The beans were shipped to large European centres; Great Britain received most, but Germany and Holland also took considerable quantities. The export trade in timber is of recent growth, the year 1907 having seen its first beginnings. Before the war, as was mentioned above (pp. 66, 67), Australia, Japan, and the United Kingdom were the leading purchasers of the timber of Eastern Siberia. A great expansion of this trade should take place in the near future.

One of the most valuable exports of the country is fur, which before 1914 was all dispatched in a westward direction and eventually reached either Leipzig or London, to one of which markets nearly all furs of any value went for dressing and sale.

The fish exported goes as a rule to Japan or China. In recent years small but increasing quantities have been canned for export to more distant markets and Pronge used to carry on a direct trade with Germany.

(b) *Imports*

The goods imported into Eastern Siberia are such as are ordinarily in demand in a recently settled colony. In 1913 they consisted principally of agricultural machinery and tools, cotton and woollen goods, many kinds of small manufactured articles, and groceries.

The agricultural machinery came almost entirely from the United States or Canada; the textiles were mainly of British or German origin, though small quantities of Polish woollen goods arrived by rail; of the other imports little can be said except that tea came from China and India, small manufactured wares mainly from Germany and America, and tropical produce by way of Shanghai and the Siberian branches of European houses in the Far East.

(D) FINANCE

(1) PUBLIC FINANCE

Up to the time of the revolution in Russia the Imperial Budget covered the whole of the Empire, including Asiatic Russia. The general revenue for all Russia increased from 2,271,600,000 roubles in 1906 to 2,855,160,000 roubles in 1912. Direct taxation upon land, buildings, and industry generally furnished less than 10 per cent. of the revenue. Excise duties brought in about 20 per cent., customs duties about 5 per cent., royalties, including the valuable spirit monopoly, about 30 per cent., property and funds belonging to the State, including the profits of State railways, about 25 per cent. The remainder of the revenue was derived from miscellaneous sources.

The total revenue drawn from the East Siberian provinces amounted in 1906 to 48,500,000 roubles and in 1910 to 45,500,000 roubles. This contraction of revenue was common to most of the provinces, only Amur and Yakutsk showing any appreciable increase, while Primorsk just held its own. The revenue from Siberia as a whole, on the other hand, rose from 85,500,000 to 90,860,000 roubles in the same period.

In every province except Amur and Primorsk, the largest receipts came from State undertakings. Under this head would be included mines, forests, and, above all, the railways. Other lucrative sources were direct taxes on land, buildings and industries, customs dues, and post, telegraph, and telephone charges.

No figures are published which give any indication of the amount spent by the State in Eastern Siberia, but considering the cost of maintaining administration and carrying on public services in so sparsely populated an area, there can be no doubt that considerable assistance from the Russian Treasury was needed to meet the deficits which must have been annually shown.

The *zemstvo* system has never been extended to Siberia, and the country is probably not ripe for it.

In consequence no money was raised locally for the maintenance of schools, local police, and country roads, or the other purposes for which the *zemstvos* were authorised to levy taxes. What little money was spent on such objects came from the Central Government.

Seven towns in Eastern Siberia were empowered to raise municipal revenue and incur debt, namely: Blagoveschensk, Vladivostok, Irkutsk, Krasnoyarsk, Nikolaevsk, Nikolsk Ussuriski, and Khabarovsk. Only the first three had a budget exceeding 1,000,000 roubles, and in no case did the debt incurred exceed 600,000 roubles, the figure reached by Irkutsk. This was partly due to the small number of public works undertaken, and also because the Central Government had at various periods spent a good deal of money on public buildings and various works of public utility, especially at the time of the construction of the Siberian Railway.

(2) CURRENCY

The rouble was and is the currency of all parts of the Russian Empire. From the outbreak of the war to the revolution, the notes of various nominal values from 1 to 1000 roubles, which were issued by the State Bank, were the only currency in circulation. Before the war the normal value of the rouble, in terms of English currency, was 2s. 0½d. As soon as war broke out, the value of the rouble began to fall in the international money market, and the issue of enormous amounts of paper roubles, unsupported by any increase of Russia's gold reserve or any other satisfactory guarantee, accelerated the process. Lack of currency for circulation has led in many regions to the issue of a local paper currency; and the currency of other States has also been widely used. The redemption of the new notes and bonds will be one of the most serious problems confronting the financial authorities on the restoration of stable conditions. m

(3) BANKING

The banking institutions in Russia can be divided into four classes: (1) State institutions, (2) land banks instituted for hypothecary transactions, (3) commercial banks, (4) mutual loan and savings banks.

(1) The principal representative of the first class was the State Bank, the characteristics of which are described in *The Ukraine*, No. 52 of this series, p. 99. It had branches in Blagoveschensk, Irkutsk, and Vladivostok, and although at present cut off from the head office in Petrograd these branches are continuing to carry on business.

There were a number of State savings-banks, each with separate organisation and limited in its activities to a particular locality, but under the control of the Ministry of Finance and the State Bank. They did not, however, play an important part in Eastern Siberia.

(2) Land banks, though very influential in European Russia, have so far not been established in Eastern Siberia, where the development of agriculture is too recent for land to have acquired the value which would make it an adequate security for large loans.

(3) The commercial banks are joint-stock institutions which have been formed for the financing of trade and manufacture. The two principal ones operating in Eastern Siberia are the Russo-Asiatic Bank and the Siberian Commercial Bank, both of which have branches at Krasnoyarsk, Irkutsk, Yakutsk, Blagoveschensk, and Vladivostok, and agencies in smaller places. The commercial banks of European Russia do not as a rule extend their operations to Eastern Siberia, but in Irkutsk there are branches of the Yaroslav-Kostroma, Nijni-Novgorod-Samara and Volga-Kama banks. In Yakutsk, Blagoveschensk, and Vladivostok there are municipal banks which finance local trade and are under the supervision of the town authorities.

In Vladivostok there is a branch of the Mazuda Bank, a Japanese concern. This appears to be the only foreign bank in the country.

(4) Mutual credit associations and savings banks were but little known in Eastern Siberia before the war, but the recent growth of co-operation renders it probable that they will become much more numerous in the near future.

In general, there is nothing to show that the banking facilities in Siberia were in any way behind the needs of the country. Had there been any unsatisfied demand for credit there is no doubt that one or more of the powerful Russian commercial banks, such as the Azov-Don Bank or the Bank of Commerce and Industry, would have established branches in the larger towns.

(4) INFLUENCE OF FOREIGN CAPITAL

Considering the size and resources of the country, there is not much foreign capital invested in Eastern Siberia. Russian law and the policy of the Imperial Government combined to discourage foreign enterprise. Thus, much capital which might have been of great service in the development of Siberian industry was lost to the country, while the authorities at the same time proved quite unable to check the most dreaded form of foreign penetration—the economic invasion of the country by the Chinese.

(5) PRINCIPAL FIELDS OF INVESTMENT

The timber industry, gold and other mining, fishing, and the manufacture of leather seem to offer the best openings for foreign capital in Eastern Siberia. The timber and fishing trades are dependent for their expansion on the improvement of the ports, and this may itself open a field for private enterprise if, as appears probable, the State is not able to cope with the task. Fish-preserving should become a very remunerative industry, so that capital for the erection of canning works with modern plant is likely to be required.

The towns of Eastern Siberia are deficient in modern amenities, and should industry and commerce develop

satisfactorily, they may be expected to spend large sums on public works. This will give opportunities for the investment of capital on good security and with a fairly high return.

Should a stable and progressive government be established in Siberia in the near future, the demand for foreign capital will probably be immediate and great.

APPENDIX

I

TREATY OF NERTCHINSK¹

AUGUST 27, 1689 (O.S.)

"1. The boundary between the two empires is to be formed by the river Kerbechi², which is near the Shorna, called Uruon by the Tartars, and enters the Amur; and the long chain of mountains extending from the sources of the Kerbechi to the Eastern Ocean. The rivers, or rivulets, which flow from the southern slope of these mountains and enter the Amur, as well as all territories to the south of these mountains will thus belong to China.

"The territories, rivers, and rivulets, to the north of the said mountain chain remain with the empire of Moscovy, excepting the country between the said summit and the river Ud, which shall be neutral until the Plenipotentiaries, after their return home, have received further instructions, when this point may be settled by letter or special envoy.

"The boundary is further to be found by the river Argun, which enters the Amur; the territories south of the said river belong to the Emperor of China; those north of it to the empire of Moscovy. The towns, or dwelling-houses, at present situated to the south of the Argun, shall be removed to the northern bank of the river."

"6³. In consideration of this present treaty of peace, and the reciprocal good understanding of the two empires, persons may pass from one empire to the other, provided they are furnished with passports, and they shall be permitted to carry on commerce, and to sell or purchase at pleasure."

¹ Translation (Ravenstein, *op. cit.* pp. 62-3).

² Gorbítsa.

³ Art. 5 in Latin version (Vladimir, *op. cit.* App. p. 345 .

II

TREATY OF AIGUN

MAY 16, 1858

I. La rive gauche du fleuve Amour, à partir de la rivière Argoun jusqu'à l'embouchure de l'Amour, appartiendra à l'empire de Russie, et sa rive droite, en aval jusqu'à la rivière Oussouri, appartiendra à l'empire Ta-Tsing; les territoires et endroits situés entre la rivière Oussouri et la mer, comme jusqu'à présent, seront possédés en commun par l'empire Ta-Tsing et l'empire de Russie, en attendant que la frontière entre les deux Etats y soit réglée. La navigation de l'Amour, du Soungari et de l'Oussouri n'est permise qu'aux bâtiments des empires Ta-Tsing et de la Russie; la navigation de ces rivières sera interdite aux bâtiments de tout autre Etat. Les habitants manchous établis sur la rive gauche de l'Amour, depuis la rivière Zéia jusqu'au village de Hormoldzin au sud, conserveront à perpétuité les lieux de leurs anciens domiciles sous l'administration du gouvernement manchou, et les habitants russes ne pourront leur faire aucune offense ni vexation.

II. Dans l'intérêt de la bonne intelligence mutuelle des sujets respectifs, il est permis aux habitants riverains de l'Oussouri, de l'Amour et du Soungari, sujets de l'un et de l'autre empire, de trafiquer entre eux; et les autorités doivent réciproquement protéger les commerçants sur les deux rives.

III

TREATY OF PEKING

NOVEMBER 14, 1860

I. Pour corroborer et élucider l'article 1^{er} du traité conclu dans la ville d'Aigoun, le 16 mai 1858 (VIII^e année de Hien-Fong, 21^e jour de la IV^e lune) et en exécution de l'article 9 du traité conclu le 1^{er} juin de la même année (3^e jour de la V^e lune) dans la ville de Tien-Tsin, il est établi:

Désormais la frontière orientale entre les deux empires, à commencer du confluent des rivières Chilka et Argoun, descendra le cours de la rivière Amour jusqu'au confluent de la rivière Oussouri avec cette dernière. Les terres situées sur la rive gauche (au nord) de la rivière Amour appartiennent à l'empire de Russie, et les terres situées sur la rive droite (au sud), jusqu'au

confluent de la rivière Ousouri, appartiennent à l'empire de Chine. Plus loin, depuis le confluent de la rivière Ousouri jusqu'au lac Hinkaï, la ligne frontière suit les rivières Ousouri et Son'gatcha. Les terres situées sur la rive orientale (droite) de ces rivières appartiennent à l'empire de Russie, et sur la rive occidentale (gauche) à l'empire de Chine. Plus loin, la ligne frontière entre les deux empires, depuis le point de sortie de la rivière Son'gatcha, coupe le lac Hinkaï, et se dirige sur la rivière Bélén-ho (Tour); depuis l'embouchure de cette rivière elle suit la crête des montagnes jusqu'à l'embouchure de la rivière Houpitou (Hauptou), et de là, les montagnes situées entre la rivière Khoûn-tchoun et la mer jusqu'à la rivière Thou-men-kiang¹. Le long de cette ligne, également, les terres situées à l'est appartiennent à l'empire de Russie, et celles à l'ouest à l'empire de Chine. La ligne frontière s'appuie à la rivière Thou-men-kiang, à vingt verstes chinoises (li) au-dessus de son embouchure dans la mer....

II. La ligne frontière à l'ouest, indéterminée jusqu'ici, doit désormais suivre la direction des montagnes, le cours des grandes rivières et la ligne actuellement existante des piquets chinois. A partir du dernier phare, nommé Chabindabaga, établi en 1728 (VI^e année de Young-Tching), après la conclusion du traité de Kiakhta, elle se dirigera vers le sud-ouest jusqu'au lac Dsaï-sang, et de là jusqu'aux montagnes situées au sud du lac Issyk-koul, et nommées Têngri-chan, ou Alatau des Kirghises, autrement dites encore Thian-chan-nan-lou (branches méridionales des montagnes Célestes), et le long de ces montagnes jusqu'aux possessions du Kokand.

Article III provides for a boundary commission for the delimitation of the frontier from Lake Khanka to Khokand in Central Asia.

ARTICLE IV.

Sur toute la ligne frontière établie par l'article 1^{er} du présent traité, un commerce d'échange libre et franc de droits est autorisé entre les sujets des deux Etats. Les chefs locaux des frontières doivent accorder une protection particulière à ce commerce et à ceux qui l'exercent.

Sont en même temps confirmées par le présent les dispositions relatives au commerce établies par l'article 2 du traité d'Aigoun.

ARTICLES V-XV regulate commerce between the Chinese and Russians, make provision for Consular establishments, diplomatic negotiations, mail dispatch and livery posting.

¹ Tumen river.

IV

TREATY OF PORTSMOUTH, U.S.A.

SEPTEMBER 5, 1905

ARTICLE IX.... Japan and Russia mutually agree not to construct in their respective possessions on the Island of Saghalien, or the adjacent Islands, any fortifications or other similar Military Works. They also respectively engage not to take any military measures which may impede the free navigation of the Strait of La Perouse and the Strait of Tartary.

V

RUSSO-CHINESE AGREEMENT REGARDING
MONGOLIA¹

SIGNED AT PEKING 5TH NOVEMBER 1913

"1. Russia recognises Outer Mongolia as being under the suzerainty of China.

"2. China recognises the autonomy of Outer Mongolia.

"3. Recognising the exclusive right of the Mongols of Outer Mongolia to administer their internal affairs and to settle all commercial and industrial questions concerning autonomous Mongolia, China will not maintain there either civil or military officials, and will abstain from all colonisation; it being understood, however, that a dignitary sent by the Chinese Government can reside in Urga, accompanied by the requisite subordinate staff and an escort. Also China may station in certain localities of Outer Mongolia, to be arranged subsequently, agents for the protection of the interests of her subjects. Russia, in turn, undertakes not to maintain troops in Outer Mongolia, with the exception of Consular guards, not to interfere with the administration, and to refrain from colonisation.

"4. China will accept the good offices of Russia to establish her relations with Outer Mongolia conformably with the above principles and the stipulations of the Convention of Urga concluded between Russia and Mongolia on November 3, 1912.

"5. Questions regarding the interests of China and Russia in Outer Mongolia arising from the new conditions will form the subject of subsequent negotiations."

¹ "As telegraphed by Reuter," Perry-Ayscough and Otter-Barry, *With the Russians in Mongolia*, pp. 40-1.

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MAPS

For map of boundary fixed by Treaty of Nertchinsk (1689), see Ravenstein. For ethnographic map of Northern Asia see A. LEROY BEAULIEU, *The Empire of the Tsars and the Russians*. Translated by L. A. Ragozin. New York, 1893.

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I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND BOUNDARIES

THE island of Sakhalin, which lies between $45^{\circ} 54'$ and $54^{\circ} 27'$ north latitude and between $141^{\circ} 49'$ and $144^{\circ} 45'$ east longitude, is separated on the north-west from the mainland of Asia by the Strait of Tartary, and on the south from the island of Yezo by the Strait of La Pérouse, which connects the Sea of Japan and the Gulf of Tartary on the south and west with the Okhotsk Sea on the east. The distance across the Strait of Tartary from Cape Pogobi on Sakhalin to Cape Lazarev on the mainland is only about four miles. The island is 586 miles long from north to south and varies in width from 12 to 95 miles; it has an area of about 29,000 square miles, including adjacent islands. By the Treaty of Portsmouth in 1905 the island was divided at 50° north latitude, the northern part being assigned to Russia and the southern to Japan. The Japanese portion, which is known as Karafuto, has an area of 13,148 square miles, while the Russian portion is supposed to be somewhat larger.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

Sakhalin has been very imperfectly surveyed, but probably local tradition is right in regarding it as having once been a peninsula, as it is now parted from the mainland only by a narrow and shallow strait. The arrangement of the mountains generally adopted presumes that there are three ranges—a north-central range starting in the Schmidt Peninsula, a western range along the coast of the Gulf of Tartary, and an

eastern range along the Sea of Okhotsk. Geographers attribute the chief heights to the western range in Japanese territory, the principal being Lopatinski or Berzinet Peak (3,890 ft.) and Toman Dake (3,396 ft.) ; in the eastern range the highest point appears to be Mount Tiara (1,940 ft.).

The principal stretches of level land on the island are on the western side from about $51^{\circ} 20'$ to $53^{\circ} 50'$ north latitude and on the eastern side from about $51^{\circ} 40'$ to the same degree. Both these plains are covered in parts with scanty vegetation. Across the island stretches a long plain, which extends from the northern shore of the Gulf of Patience (Terpyeniya) up the valley of the Poronai and down the valley of the Tim ; the watershed between these rivers is about 1,900 ft. in altitude.

Coast

The western coast of Sakhalin is wooded, and consists chiefly of high bluffs, partly of granite, partly of sand, rising in places to a height of 400 ft. North of the Strait of Mamia Rinzo, however, the coast is very low, being scarcely visible from a ship following the usual route.

The eastern coast from Manue to Cape Dalrymple is steep and rocky, and south of Cape Löwenstein becomes high and mountainous. From there to Cape Elizabeth the coast is iron-bound.

In the Japanese part of the island lie Aniva Bay in the southern extremity, and the wide Gulf of Patience (Terpyeniya), both of which are fishing centres. Characteristic features of this coast are the sea-lakes or bays which are formed along both shores. Bars are formed rapidly at the mouths of the rivers, but being of porous and friable material are quickly and easily intersected by the sea.

River System

The two chief rivers are the Tim and Poronai ; each has a course of about 300 miles, and they flow respec-

tively north and south from about latitude $50^{\circ} 30'$ north, being separated by the Palrov pass. The chief tributaries of the Tim are the Pulruga on the right bank, and the Malo-Tim and the important River Nis on the left. This river flows into the Bay of Ni, which is protected from the sea by a spit of sand with a narrow aperture (the Anuchina opening). The Poronai is a very similar stream; it rises near the source of the Tim, makes a bend northward, and then turns south, in which direction it flows for the rest of its course.

At the extreme south of the island are the rivers Naibuchi and Susuzha, the former of which has a depth of 20 ft. for the last 10 miles of its course.

(3) CLIMATE

The whole island is much colder than might be anticipated from its latitude, and the climate is severe. In the northern part July is the warmest month, with an average temperature of 62.6° F. (17° C.), and January the coldest, with an average temperature of -0.4° F. (-18° C.). At Otomari, in the Japanese part, August is the warmest month, with a mean temperature of 62.6° F. (17° C.), January the coldest, with a mean temperature of 12° F. (-11° C.).

The rainfall is heavy, especially in summer, and destructive floods sometimes occur. At Otomari the total rainfall is 19.27 in. (48.95 cm.), the number of rainy days 106, and the maximum fall in 24 hours 2.25 in. (5.72 cm.). The wettest months on the average are September and October and the driest December and February. Snow falls on 99 days in the year; it begins in October and continues till May. Frost begins in September and lasts till June; the bays along the eastern shore freeze and drift-ice appears as late as July. Frequent thick fogs are the worst feature of the climate; they are especially dangerous in La Pérouse Strait during the summer months. The western shore

enjoys better conditions than the eastern, despite cold fogs and sharp sea winds, but for several months in the year the straits are frozen. The prevalent winds are north and north-west in winter and south, south-east or east in summer.

(4) SANITARY CONDITIONS

Malaria and scurvy are the most prevalent diseases upon the island, consumption and infectious diseases being comparatively rare. Neglect of hygienic rules is one of the principal causes of mortality, and a frequently fatal disease is 'leg-dropsy'.

(5) RACE AND LANGUAGE

The Japanese, who have been developing their new possession, and emigrating to it in great numbers, are by far the largest element in the population. The Russians have almost all withdrawn from Japanese Sakhalin. The aboriginal population is dwindling, and does not now amount to much more than 3,000 in all.

The chief tribe is that of the *Gilyaks*, who occupy the northern part of Sakhalin. Their affinities are puzzling, and it is probable that a large infusion of Mongol blood has profoundly modified the original type, which is supposed to be Palaeo-Siberian. The *Gilyaks* have been less corrupted by contact with civilized people than many other tribes of the Far East. Their language appears to be a quite distinct tongue.

The *Ainus* are found in the Japanese part of Sakhalin, and are a Palaeo-Siberian tribe very difficult to classify. The hairiness for which they are popularly known has been much exaggerated, and is not greater than that of many Europeans, though it differentiates them strongly from the Mongol tribes. Their tongue is also quite distinct; they are unacquainted with writing and have no literature.

The *Oroks* occupy settlements along the east coast

and in the interior of Sakhalin. They are a tribe of Tungusic stock. About 200 *Tungus* are found in the tundra country along the lower course of the Poronai.

(6) POPULATION

Distribution

In 1911 the population of the Russian part of the island was 7,535, and of the Japanese part 36,725 ; but in the latter the numbers have greatly increased, the figures quoted for 1917 by the *Financial and Economic Annual of Japan* being 68,207, of whom 38,403 were males and 29,804 females. There are few Russians anywhere outside a radius of 30 miles from Alexandrovsk. The aboriginal population was in 1905 estimated at 2,000 Gilyaks, 1,300 Ainus, 750 Oroks, 200 Tungus, and 13 Yakuts, but these totals were almost certainly too high.

Towns and Villages

Russian Sakhalin.—The centre of government is *Alexandrovsk*, on the west coast opposite De Castries Bay ; to-day it has probably a population of about 1,200.

Ussuriysk lies on the west coast, a few miles south of Alexandrovsk. It is the centre of the coal industry, and under the Russian regime was the most frequented harbour in the island. The settlement consists of a few houses and barracks for troops. *Derbensk* and *Rikovsk* were built as convict settlements.

Japanese Sakhalin.—The capital is *Toyohara* (pop. 12,900), which is an agricultural centre 25 miles north of Otomari. *Otomari* (pop. 16,000) is a treaty port open to foreign trade, and is the principal port in Japanese Sakhalin. *Mauka*, or *Maoka* (pop. about 19,000) on the west coast, the second in importance of the Japanese ports, is a flourishing place and seems destined to become the chief port in the island, as it is free from ice all the year. It is the centre of the herring fishery. *Manue* and *Kusunai* are both on

a good road, which crosses the island. *Shikika* has an open roadstead near the mouth of the Poronai. *Sakaehama*, an important coast settlement, is at the mouth of the River Naibuchi.

Movement

The Russian population has greatly diminished ; in 1911 it is said to have fallen to 5,158 (but cf. p. 14). The aboriginal population is also dwindling. The Japanese population, on the other hand, has increased enormously since the annexation of Karafuto, and in December 1911 numbered 36,725, but this is less than three-fifths of the summer population. The average increase of the population in the five years ending 1917 was 104.69 per 1,000. The figures given in the *Financial and Economic Annual of Japan* are—1914, 57,206 ; 1915, 60,660 ; 1916, 64,323 ; 1917, 68,207. (For another estimate see p. 28.)

Emigration from Japan is the main reason for the increase. The numbers who crossed to the island from Japan were in 1910, 28,688 ; in 1911, 31,416. (But cf. p. 28.)

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1613. Reputed Japanese discovery of the south coast of Sakhalin.
- 1649. European discovery of Sakhalin by Martin Vries.
- 1700. Chinese dominion over the north of the island.
Japanese (Prince of Matsumai's) dominion over the south of the island.
- 1785. Manchus appoint overseers in the north.
Japanese Shogunate takes direct interest in the island.
- 1805-8. Mamia Rinzo's expedition through the island.
- 1807. Lieut. Koostov takes possession of the island for Russia.
- 1853. First official Russian settlements on the island.
- 1860. Treaty of Peking. Cession of Primorsk to Russia.
- 1867. Convention between Japan and Russia.
- 1875. Treaty between Japan and Russia.
- 1905. Conquest of Sakhalin by Japan.
- 1905. Treaty of Portsmouth (U.S.A.).
- 1907. Fisheries Agreement; Japan gains fishing privileges on the Russian Pacific coasts.

(1) *Discovery and Early Connexions with Japan, China, and Russia*

ALTHOUGH legends of the Gilyaks of northern Sakhalin tell of their arrival from the banks of the lower Amur less than three hundred years ago, it is certain that the earliest civilized visitors found people of that type in the north of the island and also Ainus in the south.

From time immemorial, invasions of the island appear to have followed two routes, the northern and the southern. Members of the Gilyak tribe must have filtered from their ancestral villages on the lower Amur into the northern half of the island centuries ago, while the arrival of the Ainus from Japan in the southern portion of the island probably dates from an

even more remote period. As it was with the early peopling of the island, so also has it been during the last three centuries. The Chinese arrived in northern Sakhalin by the River Amur, and were succeeded by the Russians; in the south of the island the Japanese followed in the footsteps of the Ainus.

The discovery of Sakhalin in 1649 is attributed to the Dutch Captain, Martin Vries; he named its easternmost point Cape Patience, and anchored in the Bay of Aniva, which faces south towards Yezo, the northern island of Japan; but in an eighteenth-century Japanese geographical account it is claimed that during the Shogunate of Fidia-toda (1605-22), the Prince of Matsumai, Kinfiro, ruler of Yezo, sent an expedition to survey Karafuto; it returned the following year to the island and wintered there. No settlement appears to have been made; and Vries, thirty years later, reported only Ainu natives on the south and east coasts. A later Prince of Matsumai (1688-1703) sent officials to the island, and claimed to have established his dominion over the southern half of Sakhalin by the year 1700. A map (or a copy made in 1782) is said to exist, which he presented to the Shogun as a sign of the offering of dominion. Eleven of the divisions of Sakhalin and several of the Kurile Islands have been identified on this map, which also shows 81 Japanese and 140 mixed native and Japanese villages. Such a Japanese settlement of the southern portion of the island in the early eighteenth century seems at least doubtful, but another source confirms the existence at this period of a lively trade between Matsumai and the Ainus of Karafuto.

The succeeding Princes of the Matsumai dynasty were unsupported by the Tokugawa dynasty, and their influence waned before the advance from the north of the Manchus, who in the last quarter of the eighteenth century had encroached seriously on their trade. It was not until after the accession of the Manchu dynasty to the throne of China (1644) that interest even in Manchuria was awakened

in the Empire. The first notable result, in part due to the influence of the Jesuit Fathers at the Court of the Emperor K'ang-hsi (1661-1722), was the Treaty of Nertchinsk (1689), which checked the Russian advance down the Amur river. Ten years later, according to a Japanese historian,¹ a Chinese General, Koklio, was dispatched with a large force down the River Amur and across the sea to a large island which (or at least its northern part) he seems to have annexed. The same authority adds that the Chinese were dominant in the north of the island about the year 1700. It seems improbable, if this military expedition occurred so early as 1699, that it would have been unknown to the Jesuit Fathers who were sent by K'ang-hsi in 1709 to map eastern Tartary; they reported that their first knowledge of the island was gained from natives on the Amur, and added that the Emperor later sent Manchus to Sakhalin, who brought back a careful geographical and topographical account of the northern half of the island. Perhaps it was this survey which appeared at Peking in 1776 in the twenty-fourth volume of a hydrographical work on China, collated from the earlier *Great Official Description of the Empire*.

From 1785 the Shogunate Government took a direct interest in the island, sending an expedition in that year to Yezo, whence Oisha Ippei was dispatched to Sakhalin to learn from the Manchus what area they claimed. About this time both the Manchus and the Japanese became alarmed at the activities of 'foreign ships'. The Manchus, according to Mamia Rinzo, appointed certain of the natives overseers of various districts, and tried to bind the natives by a solemn agreement to trade only with themselves; but from the beginning of the nineteenth century we hear nothing of Manchu claims, although their traders from the lower Amur continued to visit the island as they had probably done for the previous two hundred years. On the other hand, Japanese fears of Russian aggres-

¹ Togo Yoshida, *Karafuto under the Prince of Matsumai*.

sion led to the dispatch of several expeditions, the most notable of which—that of Mamia Rinzo in 1805–8—resulted in the discovery that Sakhalin was an island, and left us a map and description of it.

The Russian arrival overland in these regions was comparatively late; and, although Poyarkov had descended the Amur in 1644, Russian progress, except in the direction of Kamchatka, was checked for 160 years by the Chinese (Treaty of Nertchinsk, 1689).¹ Nevertheless, Russian ships were seen in the north Pacific from the year 1720; and in 1800 the Tokugawa librarian, Hondo Juzo, found and destroyed pillars of occupation set up by the Russians on the island of Iturup (Kuriles). In 1807 a Russian, Lieutenant Koostov, with the permission of Ambassador Riazonov, took possession of Sakhalin for Russia; but in 1813 Vice-Admiral Golovnin, who had been seized by the Japanese three years earlier as he was surveying one of the southern Kurile Islands, obtained his release by disavowing Koostov's act, and formally renouncing Russia's claims to Sakhalin.

This period witnessed the growing importance of the fisheries of southern Sakhalin in the hands of the Japanese. There existed many fishing-stations with storehouses, especially on the west coast; and a commissioner with under-officials and a Government depot was stationed at Kusunkotan (later Korsakovsk). Fur-trading continued with the Ainus and Gilyaks, and there were a few allotments under cultivation.

(2) *Russian Occupation and Negotiations with Japan, 1850–75*

Russia, dependent for a century and a half on mere forest tracks—impassable during most of the summer—for land communications with her posts in Kamchatka and along the Okhotsk coasts, had cast longing eyes on the Amur river as a convenient highway. Any attempt to use the river, however, would involve risk of a clash with China, and farther advance

¹ For text of this treaty, see *Eastern Siberia*, No. 55, p. 92.

might embroil her with Japan. In 1846 Lieutenant Govrilov had explored the mouth of the Amur, and had reported (inaccurately) against its navigability. Moreover, Count Nesselrode, the Russian Foreign Minister, was fearful of offending China. The Tsar, however, was interested in Far-Eastern Siberia, and appointed General (afterwards Count) Muraviev Governor-General of Eastern Siberia in 1847, with instructions to study the Amur region. Count Nevelskoy's activity on the East Siberian littoral under Count Muraviev led to the establishment in 1853-5 of small Russian posts in the south of Sakhalin, also at Due on the west coast opposite De Castries Bay, where on the mainland a Russian post had been established in 1849. Due was chosen as a fur-trading place; but in the same year the discovery of coal there and exaggerated reports of its value led to increased activity on the part of the Government. In 1853 Admiral Putiatin had advised Count Nevelskoy that the annexation of Sakhalin, following the Imperial Order of April 11, 1853, for its occupation, must involve trouble with Japan; and three years later it fell to him to sign a treaty with Japan, Article II of which provided that

the boundaries between Russia and Japan are in future between Iturup and Urup. The whole island of Iturup belongs to Japan, the island of Urup with the north Kuriles to Russia, while the island of Krafto (Sakhalin) is neutral ground between the two Empires.

Count Muraviev found in the Crimean War and the Anglo-French expedition to Peking his opportunity for expansion. During the former he largely increased his forces for the 'defence of the Pacific coast', and with this as a makeweight, in the hour of China's weakness, negotiated the Treaties of Aigun (1858) and Peking (1860), by which Russia obtained the Ussuri and the Primorsk (coast) regions. No mention of Sakhalin occurs in these treaties; and China's claim to the island can only be said to have lapsed incidentally to Russia, no such plea indeed having been

publicly preferred by the latter. Moreover, Russia had previously to these treaties begun fencing with Japan over the island.

During the next few years the weak Tokugawa dynasty—fearing Russian aggression—dispatched envoys at intervals to St. Petersburg; but they met with little success, since Russia coveted the reputedly rich coal-mines of Sakhalin and the Bay of Aniva, which for a large part of the year is ice-free. To Japan it appeared that the whole island was slipping from her grasp by diplomatic processes. When therefore, in 1862, Russia demanded that the boundary line should be the 48th parallel, an arrangement which would have given her more than four-fifths of the island, Japan expressed her willingness to compromise and to divide the island on the 50th parallel. This offer was not accepted; and in 1865 Russia offered to exchange the Kurile Islands, to which Japan had an equal claim, for the Japanese claims on Sakhalin. On March 18, 1867, these negotiations were suspended for a few years by a curious convention which gave to each Power ‘the common right of joint occupation’, and to members of both nations permission to ‘occupy’ unoccupied places all over the island. An immediate race for occupation was the result. Japan, populous and near at hand, readily furnished colonists, whereas Russia, being far away, could at best send ex-soldiers and convicts, but no women. The Russians, thus handicapped in the race, erected inscribed posts to denote that occupation had taken place. The Japanese followed suit. In 1869 800 convicts were dispatched from Trans-Baikalia to work the coal-mines at Due. Although there was no local collision, this anomalous state of things could not continue; and on April 25, 1875, Japan, alarmed at Russia’s growing power in the Far East, gave way, accepting in lieu of her claim to Sakhalin the Kurile Islands and an annual payment for a fixed number of years. She also agreed to station a consul at Korsakovsk during the summer months to levy on account of Russia a *pro rata* tax on

the Japanese fishermen. It was a diplomatic defeat for Japan; but she had saved that for which Sakhalin was most valuable to her, namely, the right to fish on the southern coasts of the island.

(3) *Russian Possession, 1875-1905*

It is instructive to contrast the differing significance of the island to the Chinese, the Japanese, and the Russians. The Chinese and their Manchu subjects regarded it as a fur-trading centre; the Japanese valued it mainly for its rich fisheries; the Russians were first attracted by reports of rich coal-mines, but the poor results yielded by backward methods and convict labour disappointed them, and they came to look upon the island merely as a convenient dumping-ground for convicts.

Sakhalin, indeed, proved to be a gaol in itself. It was easy to escape from prison but not from the island. Russia's penal policy affected Sakhalin, and Sakhalin reacted on that policy. The Siberiaks of the seventies and eighties urged the familiar colonial objection to their country being overrun by escaped convicts and ex-convicts. Moreover, the Exchequer was interested, since security of life and property in Siberia spelled greater potential receipts. In 1888 M. Galkin Vrasskoy (afterwards head of the General Prison Administration) recommended that all 'vagabonds' should be sent in future to Sakhalin; and shortly before this female convicts were sent to the island, the simplest form of legal marriage being permitted, in order to bring about the settlement of ex-convicts on the island.

Sakhalin was divided into three administrative districts (*okrugi*), of which the chief places were Alexandrovsk on the west coast, Korsakovsk in the south, and Rikovsk in the centre. At the head of each district was a chief or *Nachalnik*, assisted by a doctor, an Inspector of Colonies, and a small garrison consisting of one company. Prisons were situated in each of the chief towns and in a few others; and for a short radius

around these, in clearings, there were 99 small settlements of ex-convicts and those convicts who were allowed to perform their hard-labour duty outside the prison. Over all was the Military Governor, having his official residence at Alexandrovsk, and responsible to the Governor-General of Eastern Siberia at Khabarovsk on the Amur.

Taking the Government statistics of January 1, 1898, as typical of the period, the population of the island comprised 31,964 Russians and 4,134 natives (but cf. p. 6). Of the Russians there were 19,770 men and 2,397 women who had been sent to Sakhalin as convicts. Only 7,080 (6,446 men and 634 women) of these convicts were at hard-labour duty; the rest, having done their term, had become 'exile-settlers'. Among the hard-labour convicts were 76 political exiles. The free population consisted of 1,308 women and 6 men who had followed their convict spouses, several thousand children of convict parents, and about 2,000 officials and soldiers.

The bulk of the convicts lived outside the six prisons, the unmarried men in barracks; and all, including many from the prisons, worked at logging, coal-mining, and various domestic jobs for the officials. Ex-convicts were allotted uncleared land, seed potatoes, and rations for a year, and after a residence of six years, subject to good conduct, could cross to the mainland if they were offered work there or had obtained sufficient money. The Government regulations were in general humane, but were largely nullified by the maladministration of officials. With convict and ex-convict labour it is not surprising that no industry flourished. The coal-mining produced from all the mines only about 36,000 tons a year; agriculture was of the poorest, and grazing little better. Fishing, except in the southern half of the island, was confined to the rivers, and scarcely counted even in local consumption.

In the south of the island, although many Japanese had left after 1875, the larger share of the fisheries was still in the hands of their countrymen. It is necessary

to explain the extreme importance attached to these by the Japanese. Japan is still largely an agricultural country, and depends upon intensive cultivation. Fish is therefore necessary to her, not merely as a food, but as manure. Until the Chino-Japanese War haricot pods from China and Korea had been used as a substitute for guano. When these supplies were cut off the Japanese came to realize the value of fish manure, which, although five times the price, is far superior in chemical properties. With the increase of shipping and particularly of steam shipping, the schools of fish, notably herring, have to a large extent been frightened from the coasts of Japan, so that Sakhalin is increasingly valuable to her.

The attitude of the Russian Government towards the natives, who are peaceable, was paternal, but rather passively so than actively. It interfered little with them; and, so long as no trouble arose, they were allowed to regulate their lives by the customs of the tribe, the chief man of each village being appointed its responsible head. Unfortunately the activity of the lower officials and ex-convict traders was in contrast to the Government's passivity; for in contravention of Government regulations they traded vodka for valuable skins. Further, by the march of civilization and competition on the part of ex-convicts, the natives lost river-fishing stations; their winter store of fish was thus reduced, and they became liable to starvation and epidemics in the late winter. Occasionally in such crises the Government distributed food.

(4) *Japanese Conquest, 1905*

The cession of the island to Russia in 1875 caused considerable excitement in Japan, and it was to be expected that the latter would seize the first opportunity in the Russo-Japanese War to retake it. This opportunity did not arise until after the defeat of the Baltic fleet in the Tsushima Straits on May 27 and 28, 1905. Two naval squadrons with transports were

forthwith dispatched from Japan to Sakhalin, the first disembarking in the Bay of Aniva on July 7, 1905. The Russian forces, inferior in number, were defeated and driven northwards into the forests of the interior. The second squadron landed troops on the west coast at Arkova, Alexandrovsk, and Due on July 24, and, quickly driving the enemy eastwards to Derbensk in the centre, overtook them in the forests to the south, and defeated them at Palevo. On July 31 the Military Governor of Sakhalin, with 70 officers and 3,200 rank and file, surrendered. The following day Lieutenant-General Haraguchi proclaimed military administration over the whole of the island; and on August 6 the civil administration staff left Tokyo for Karafuto.

The news of the result of the conference at Portsmouth, U.S.A., led to considerable agitation in Tokyo, and the press had to be muzzled. Great expectations of the advantageous terms to be exacted by their victorious arms had been cherished by the Japanese public; but the financial weakness of Japan and the clever manœuvring of M. de Witte doomed them to early disappointment. Apparently the negotiations between Russian and Japanese envoys reached a deadlock. At this point President Roosevelt is said to have suggested to the Tsar the cession of the southern part of Sakhalin to Japan and a payment for the other half. The latter provision savoured of an indemnity, and the Tsar refused; but, when the negotiators met again, M. de Witte proposed the cession of the southern half of the island to Japan, and Baron Komura accepted the offer.

Of the Portsmouth Treaty (Sept. 5, 1905), Articles IX, X, XI, and an Additional Article, concern Sakhalin:

Article IX reads :

The Imperial Government of Russia cedes to the Imperial Government of Japan in perpetuity and full Sovereignty the southern portion of the Island of Sakhaline, and all the Islands adjacent thereto, and the public works and properties thereon. The fiftieth degree of north Latitude is adopted as the limit of the ceded territory. The exact alignment of

this territory shall be determined in accordance with the provisions of the Additional Article II annexed to this Treaty. Japan and Russia mutually agree not to construct in their respective possessions on the Island of Sakhaline or the adjacent Islands any fortifications or other similar military works. They also respectively engage not to take any military measures which might impede the free navigation of the Strait of La Pérouse and the Strait of Tartary.

Article XI reads :

Russia engages to arrange with Japan for granting to Japanese subjects rights of fishing along the coasts of the Russian possessions in the Japanese, Okhotsk, and Bering Seas. It is agreed that the foregoing engagement shall not affect rights already belonging to Russian subjects or foreigners in those regions.

Article X provides for the safety and protection of Russian subjects in the area ceded to Japan; and Additional Article II, referred to in Article IX, provides for a Commission to delimit the boundary and to prepare a list and description of the adjacent islands comprised in the cession and maps showing the boundary.

This arrangement was completed by the Russo-Japanese Fisheries Agreement of 1907, by which Japanese fishing guilds and companies acquired leases of fishing rights in Russian territorial waters while Russian concerns operating both on the coast and on rivers were allowed to employ Japanese labour in certain cases. Altogether some 13,000 Japanese fishermen and labourers spend the summer at stations along the Asiatic Russian littoral. Thus one of the chief sources of income of the Hokkaido (Japan) is outside its boundaries, and its prosperity is largely dependent on the success of fisheries on a foreign shore.

III. SOCIAL AND POLITICAL CONDITIONS

(b) RELIGIOUS

(A) *North Sakhalin*

(a) *Natives*.—The few hundred natives are Shamanists; for them Nature, animate and inanimate, possesses spirits; and the medicine man (in the Gilyak tongue, the *Cham*) exorcises the bad and attracts the good demons. The Bear Festival in January, at which the animal is sacrificed and his spirit speeded to the God of the Mountains, is the greatest religious and social event in their calendar. Although the Gilyaks are included by M. Patkanov¹ as Christians, there is not a sign of their conversion; it is otherwise with the Oroks, who have cut off their pigtails and added, at least in one or two of their huts, an ikon to their collection of charms. The Russian priest is not above the temptation to supply vodka in exchange for valuable sable skins. Once a year he makes a journey to the centre of the island during the hunting season to baptize Orok children and read the burial service for deceased members; but the natives do not respond with alacrity, since many sable skins have to be given for these privileges.

(b) *Russians*.—The Orthodox Catholic religion obtains among the majority of Russians. All officials have to receive the Communion once a year; but it is not difficult to arrange with the priest for evasion of this obligation. Exceptions to the law are made in favour of those of other acknowledged religions. There were, besides the Russian church at Alexandrovsk, a Lutheran church and a Mohammedan mosque. In 1898 there

¹ *Essai d'une statistique . . . des peuples palaeasiatiques de la Sibirie.*

were sixty-seven prisoners doing hard labour who were sentenced on account of their religious belief. The number of churches officially reported for the whole island before the Russo-Japanese War was twenty-six, but there are really about half a dozen only in the northern area, Alexandrovsk, Due, Derbensk, and Rikovsk each having one. The priest occasionally visits the forty or fifty out-lying settlements and reads a short service at a spot marked by a cross.

(B) *South Sakhalin*

(a) *Natives*.—Except for a very few Gilyaks the natives of South Sakhalin are Ainus. They are said to believe in a great Creator, but otherwise are animists, seeing spirits in most natural forms. A patriarch of the village performs their ceremonies and they have no Shamans. The Bear Festival is the great event of the year, and they have even been called on this account 'bear worshippers'. As the Japanese do not proselytize, the Buddhist and Shintoist priests do not carry on any missions among them.

(b) *Japanese*.—The recent growth of the national spirit among the Japanese, particularly during the Russo-Japanese War, led to the revival of Shintoism ; so that it is no longer true to say that Shintoism ushers the Japanese into life and Buddhism attends and buries him. Both these religions are represented in Sakhalin, the former by four sects with eleven shrines and the latter by six sects and seventy-three temples. There are also four Christian churches, two so-called Japanese Episcopalian and two Roman Catholic.

(2) POLITICAL

(A) *North Sakhalin*

The Military Governor of the island resides at Nikolaevsk on the Amur and visits his official residence at Alexandrovsk once or twice a year, a Deputy-General being in charge. A small garrison, nominally a battalion, is stationed in the island. Theoretically

the officials are interested in the development of the island; but the schemes put forward have not materialized after years of talk.

(B) *South Sakhalin*

Karafuto is divided into five administrative districts (*cho*) under prefects. The Governor has his seat at Toyohara, having moved his capital northwards (25 miles) from Otomari. A small garrison is posted at the latter place, one of the companies of a scattered battalion.

(3) EDUCATIONAL

(A) *North Sakhalin*

(a) *Natives*.—Among the natives of North Sakhalin, of whom the great majority are Gilyaks, there are no educational facilities. Two or three individuals have been known to learn Russian and to reside for a time in Russian towns; but the white man's life has not suited them.

(b) *Russians*.—Statistics show that the Russians, before the Japanese conquest of the island, had 32 schools with 800 pupils, of which perhaps one-half are in the existing Russian portion of the island. These were in most cases small village schools dependent for their existence on the presence of a political exile as teacher. The number has probably decreased with the diminution of the population. Under the present system Sakhalin falls in the fifteenth division of the general Amur educational district. In a division of an *oblast* such as is Sakhalin, primary education is provided by the local authority or by private persons. The schools are of the primary grade, and for higher education it is necessary to go to the mainland.

(B) *South Sakhalin*

(a) *Natives*.—Under the Japanese in 1917 there were among the natives twelve 'teaching places' with 202 pupils conducted at an expense of 4,838 yen.

(b) *Japanese*.—A complete national system of education was established in the Japanese Empire in 1873 and remodelled in 1886. Primary schools prepare for the middle—followed by the high schools, which in turn prepare for the universities. In South Sakhalin there were in 1916 three Government primary schools with 2,628 pupils, one Government middle school with 225 pupils, and a Government higher girls' school with 48 pupils. The cost of these was 67,159 yen. In addition to these there were 105 private primary schools with 5,420 pupils with a total expenditure of 74,009 yen. Commercial and technical schools in Japan are largely private ; but there is no mention of such existing on the island.

GENERAL OBSERVATIONS

In considering the claims to the island we may dismiss the question usually raised by the presence of subject native races. The proposal to give back the island to them cannot be effectively urged. There are four different tribes, numbering all told about 3,000 individuals and gradually diminishing. They are still in the hunting stage.

The coal of the island is of good quality and the quantity of fair promise. Its future may be brighter when harbour facilities remove its handicap in competing with Japanese and North-China coal.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads, Paths, and Tracks*

THE greater part of the island of Sakhalin is covered with primeval forest, and the means of communication are therefore defective ; the few roads that exist have been cut through the jungle by convict labour. There are also a few paths, made by widening bear-tracks. The natives travel chiefly by river.

The main road of the island during the period of Russian rule started from the coal-mines of Due on the west coast and ran to Alexandrovsk, the seat of government, a distance of about 8 miles. It then ran northward to Arkovo, a village near the coast, whence it turned inland, crossed the backbone of the island, and dropped down on the other side to Derbensk on the upper waters of the Tim, 35 miles from Alexandrovsk. At this point a corduroy road and cleared track descended the Tim to Slavo, but the main road turned southwards for 9 miles, to Rikovsk. The total length was 44 miles of well-made road. Beyond Rikovsk the road became merely a cleared track, following for 200 miles the swampy right bank of the Poronai, and thence proceeding along the east coast through Naibuchi and Vladimirovka to Korsakovsk, which under the Russians was the chief prison and administrative centre of the south.

For a few miles out of Rikovsk there was a road on the left bank of the Poronai, passing through the village of Longari. From Alexandrovsk there was also a short road inland to Novo Mikhailovsk, which may be termed a suburb, and thence a track to Rikovsk. In winter the natives with their dog-sledges used the

beach, or rather the frozen fringe of the sea, as a mail route to Cape Pogobi, whence they crossed the frozen sea to the mainland. It was also considered safer to make the journey from Alexandrovsk to Arkovo, and the latter half of that from Alexandrovsk to Due, by the beach at low tide, instead of by the road, as the traveller thus reduced the chances of attack to one side only.

Korsakovsk in the south was the centre of a few Russian roads which began bravely enough, but ended as mere tracks. One ran northwards to the village of Takoi, beyond Vladimirovka, and another linked up Korsakovsk with Muravievsk on the south-east and with Mauka on the west coast. At the narrowest part of the island a Russian track connected the villages of Manue on the east coast and Kusunai on the west.

After the acquisition by Japan of the southern part of the island, new towns were laid out at Toyohara (Russian, Vladimirovka), Otomari (Korsakovsk), and Mauka, and a highway was constructed across the backbone of the island from Toyohara, the capital, to Mauka on the west coast. Another was made later from Toyohara south-west to Cape Notoro. The Russian highways and tracks were converted into roads 15 ft. in width, and bridges were built. These roads and bridges, however, leave something to be desired, and better provision is necessary if the economic expansion of the colony is to continue. By 1911 the Government had established 53 ferries, carrying passengers at small fees, or without charge, and had granted subsidies to 73 road stages providing lodgings, horses, and porters. Notwithstanding their conservatism, the Japanese are using Russian carts on these roads. In winter, communication is maintained between Toyohara and Mauka by Ainu dog sledges and with the Russian part of the island by native reindeer sledges.

(b) *Rivers*

The chief rivers, the Tim and the Poronai, are shallow, and their mouths have to be approached

cautiously on account of sand-banks or dunes. The Poronai is navigable a few miles up—as far as Poroto—by vessels of $4\frac{1}{2}$ ft. draught. The Tim, from Derbensk to its mouth, a distance of about 200 miles, is said to have 11 rapids, 89 sand-banks, and many obstructions formed by fallen trees.

The rivers are the main highways for the natives, who use them for canoe traffic in the summer, and as roads for sledges when frozen in the winter.

(c) *Railways*

There is no railway in the Russian area. Rails are laid down from Alexandrovsk to the jetty, a distance of about $1\frac{1}{2}$ miles.

During the Russo-Japanese War the Japanese military administration built a light railway of 3 ft. 6 in. gauge from Otomari (Sakaemachi Station) to Toyohara; this was opened to the public in 1909. In 1911 it was extended to Sakaehama, a total length of about 56 miles, thus linking up Aniva Bay with the east coast. This railway is said to connect the four wood-pulp factories which the Japanese have established at Otomari, Tomariaru, Toyohara, and Ochiai.

(d) *Posts, Telegraphs, and Telephones*

In the Russian portion of Sakhalin mails are delivered by the Russian Volunteer Fleet of steamers to Alexandrovsk. During about three months of mid-winter, mails are carried by native dog-sledges over the frozen sea between the island and Nikolaevsk, near the mouth of the Amur. The Russians had a telegraph system along the roads linking up the principal prisons, which were connected also by the weekly post from Alexandrovsk.

The Japanese have a mail service three times a month by steamer from Hakodate. They have maintained and extended the Russian telegraph system. Postal, telegraph, and telephone offices are established in the chief towns, Toyohara, Otomari, Mauka, Shikika,

Nayoshi, and Nishi-Notoro. There are sixteen subordinate post offices, two of which are also telephone exchanges.

(2) EXTERNAL

Under Russian rule Sakhalin suffered seriously from the want of regular communication with the mainland. In the winter there was no communication, except for the months during which sledges could be used ; and even in the summer, when the sea was open, there was no harbour available.

(a) Ports

Alexandrovsk and *Due* are mere open roadsteads. *Alexandrovsk* has a pier 350 yds. long ; and, in order to develop the coal-mining industry, it has been decided to construct a properly equipped port there. At *Due* ships have to lie two-thirds of a mile out.

Mauka on the west coast is another open roadstead, but it has the distinction of being almost free from ice in winter, and it seems destined to become, if it has not already become, the most flourishing port of Japanese Sakhalin. To-day it possesses a larger population (19,000) than any other town on the island.

Otomari, which includes *Sakaemachi*, 1 mile distant, is closed by ice for about three months in the year, but in the open season it affords safe anchorage, except with winds from the south and west. Four short piers and one longer one, with a depth of 6 fathoms at its end, have been built, but ships generally unload into lighters.

Minor ports are *Sakaehama* on the east coast and *Ushiyara* on the west coast, but at both the anchorage is most insecure. Ships must lie some distance off shore and load and unload by means of lighters.

From time immemorial Japanese junks have anchored in the Bay of Ni within shelter of the sand-dunes, to trade with the native Gilyaks, Oroks, and Tungus. Unfortunately on this coast fogs prevail from the end of April into July.

The only available records of shipping are for

Japanese vessels entering Otomari. In 1912 that port was visited by 31 steamships, with a total tonnage of 18,186, and two sailing-vessels of 205 tons. In 1914 36 Japanese steamships of 16,451 tons entered and 26 of 10,159 tons cleared; in the same year 1 sailing-vessel of 114 tons entered and 3 of 478 tons cleared.

(b) Shipping Lines

Between Russian Sakhalin and the mainland communications are maintained from the middle of April to the end of October by steamers of the Russian Volunteer Fleet; there are 16 sailings from Vladivostok to Nikolaevsk, and the ships call at Alexandrovsk on the outward and return journeys. An occasional tramp steamer calls at Due or Vladimirsch for coal.

In Japanese Sakhalin, shipping communications are regular and frequent in the open season. There is a service during the summer to Otomari from Hakodate and Otaru, with nine sailings per month, provided partly by the steamers of the Nippon Yusen Kaisha and partly by the small steamships of the Osaka Shosen Kaisha; the latter call twice monthly from April to December at Sakaehama and minor ports on the east coast of the island. There is also said to be a coasting service of the Kita Nippon Kisen Kaisha's vessels.

(c) Cables and Wireless Communication

A Russian submarine cable is laid between Cape Pogobi on Sakhalin and Cape Lazarev on the mainland. There was an older cable connecting Alexandrovsk with the mainland at De Castries Bay; this was broken in 1901, but is reported to have been repaired.

The Japanese have a cable from Alexandrovsk to the island of Todoshima (Kaibato) off the south-west coast, and thence to the island of Yezo.

The nearest wireless stations are at Nikolaevsk on the Siberian mainland, and on the Japanese island of Yezo.

(B) INDUSTRY

(1) LABOUR

(a) *Supply of Labour ; Emigration and Immigration*

Since the Russo-Japanese War, Sakhalin has ceased to be a penal settlement, and the prisons now house local offenders only. The difficulty in the old days was to provide lucrative work for the prisoner who had served his time. To-day the population of the Russian territory has dwindled to a sixth of what it was, and continues to decrease. In 1911 there were only 5,158 Russians in the northern half of the island, of whom 726 were officials and soldiers, 1,502 ex-convicts, and the rest mostly dependants of these. Rikovsk has only one-third of its houses occupied, and Alexandrovsk is said to have only one-fifth of its former population. In these circumstances there is no question of the supply of labour. With the exception of a few ex-convict traders, the bulk of the population is engaged in growing potatoes, garden produce, and cereals, and barely succeeds in raising enough for its own support. Little economic progress can be expected from the remnants of an ex-convict population, whose most energetic members took the opportunity of the Russo-Japanese War to make their escape to the mainland.

The coal-mines at Due and Vladimirska need labour, but this work does not appeal to the Russian population ; hence up to 1914 some 600 Chinese and Koreans were employed in the mines.

The Russian part of the island is unattractive climatically, agriculturally, and socially, and the blight of the penal system is over it ; hence it is not surprising that, notwithstanding the inducements offered by the Government, only 30 new families settled during the years 1907-10. The Government offers loans to

intending settlers, up to a sum of 400 roubles to each family, on condition that a *khodok* or selector chooses the land they are to occupy. Easy terms of repayment are granted, the sum being divided into ten annual instalments commencing at the end of five years. In certain cases half the loan may be remitted. To settlers above fifteen years of age a postponement of military service for six years is also granted.

No statistics of emigration are available, but the mainland, with its better climate and greater development, especially at Nikolaevsk and Khabarovsk, attracts a few hundred emigrants annually.

With regard to immigration in South Sakhalin, the number of Japanese who visit the island in the summer for the fisheries has increased by tens of thousands since the establishment of Japanese rule. Another stream of immigrants has settled down permanently to cultivate the soil. One record gives the number of families settled on the land up to the end of 1917 as 3,857, and this seems to be confirmed by another report which mentions a total of 17,000 settlers. The impending development of the wood-pulp and match-stick mills may help to steady the demand for labour, which has varied with fluctuating harvests.

The Japanese population, reckoned on June 30, was as follows: 43,456 in 1908, 57,051 in 1911, 73,568 in 1915, and 76,705 in 1916; these figures, however, include many thousands of migratory fishermen. The seasonal character of this immigration is shown by comparing the above totals with those given in the records for December 31, which were as follows: 26,393 in 1908, 36,725 in 1911, 60,660 in 1915, and 64,323 in 1916 (cf. p. 14). Of the total population, three-fifths is said to be engaged in the fisheries.

(b) *Labour Conditions*

In Russian Sakhalin the people are almost entirely engaged in cultivating their own plots of land, and therefore make their own labour conditions. In some cases they are the victims of careless or unscrupulous

officials, who have settled them or their parents before them on entirely unsuitable land. On the whole, the blight of the convict is perhaps the greatest hindrance to the development of a prosperous community.

In Japanese Sakhalin the immigrants have been selected and their prospective lands carefully chosen. Roads and communications have been made, and no stigma attaches to the population. They also have the distinct advantage of a less inclement climate.

The early arrangements were for settlers, who could afford to do so, to stay at Otomari; and for those who could not, to go to the immigrant 'town' near by, where they were to await instructions. Carefully selected before leaving their homes, they were allotted 22,500 *tsubos*¹ (nearly 18½ acres) of land and a Russian house. For this they were to pay 6s. per annum to the Government and to keep the house in repair. The land was to become the property of the settler if at the end of five years it had been cultivated to the satisfaction of the authorities.

No report is available of the conditions of those engaged in the fisheries and canneries. In 1908 the majority were migratory, but to-day the migratory element is less than half of the total. Similarly, there is no information as to those employed in the wood-product factories.

(2) AGRICULTURE

(a) *Products of Commercial Value*

Russian official statistics, which err on the optimistic side, state that there are in the Russian part of the island 321,250 acres of good land suitable for cultivation. Of this area about one-half is already occupied by the inhabitants of 27 settlements. It is thus computed that there are still more than 160,000 acres of agricultural land available for immigrants.

The products of the land under cultivation in Russian Sakhalin are very meagre. The most favourable report

¹ 1 *tsubo* = 3·9 square yards.

shows that the yield of wheat, barley, and rye is about five and a half fold, and that of potatoes ninefold. These crops are all consumed on the island; the rye crop is not even sufficient for local needs. In 1911 there were 1,797 horses, 4,315 cattle, and 1,400 pigs. The Government agricultural school at Rikovsk possesses a small farm and a few head of cattle.

In South Sakhalin the cultivated areas are increasing. The total area cultivated by the 3,857 families stated to have been settled by the end of the year 1917 was 9,485 *chos*¹ (23,238 acres). It is further reported that there were more than 438,000 *chos* (1,073,100 acres) of land in the Japanese territory available for cultivation and pasturage. This figure is, however, probably much exaggerated.²

Barley, wheat, potatoes, beans, cabbages, flax, and hemp are grown successfully on the river margins and in the sheltered valleys. Stock-farming is expected to do better on the plains and the lake margins, especially since the large bears have been driven north. Foxes and similar animals are bred for the fur trade (cf. p. 38).

(b) Forestry

Forests cover the larger part of Russian Sakhalin. It is stated that their area is 14,766 sq. miles, but this is almost certainly exaggerated. The chief species of trees are larch, fir, spruce, and birch; the timber is suitable for export, but this has been hindered hitherto by the lack of facilities for transport. The Russians until recently used the forests for fuel and for building their log dwellings; and large areas have been burned through carelessness. Up to 1914 the saw-mills at Alexandrovsk provided for local needs; but new developments at Nikolaevsk on the mainland, due to the capture by the Russians of the export trade in fish, and its diversion towards Europe,

¹ 1 *cho* = 2.45 acres.

² This area, added to the total area given by the same authority for the forests, amounts to about 1,350 square miles in excess of the area given for the whole of Japanese Sakhalin.

together with the construction of the Amur railway, have led to a great boom in the timber trade. It is reported that the Association of Lumbermen of the Amur Region have been granted a concession in Sakhalin near the Russo-Japanese boundary, and that they intend to construct their own harbour.

In Japanese Sakhalin the forests belong to the Government, and surveys have been made. The area of the forests was given by the *Financial and Economic Annual of Japan* for 1918 as 3,352,712 *cho*, or 12,834 square miles, but, as in the case of the agricultural area, there is little doubt that this figure is too high. It would seem that probably three-quarters of the surface is forested, and that about five-eighths of the forest consists of conifers. The most important trees are the larch (*Larix dahurica*), the spruce (*Picea ajanensis*), the fir (*Abies sakhalinensis*), and the white birch. Larch logs have been sent to Japan in quantities for conversion into railway sleepers and telegraph poles, and the white birch has been found useful for the production of charcoal, calcium acetate, and wood-tar. Wood-pulp and match-sticks have now been added to these products.

(3) FISHERIES

The Russo-Japanese Fisheries Convention, concluded in 1907 for a period of twelve years, granted to Japanese subjects the right to fish along the coast of the whole of the Russian Far Eastern possessions on an equal basis with Russians, except in certain 'non-conventional' bays and gulfs, reserved for Russians only. The use of vessels under foreign flags is allowed. The stations are put up to auction annually at Vladivostok by the Priamur Department of Domains. Since 1910, when the Russian fishermen on the Amur river captured the trade from the Japanese, the Russians have competed in increasing numbers for the stations off the Pacific coast of Siberia, and have adopted modern equipment and methods of preparation. In 1913 there were 14 stations in Russian

Sakhalin, of which 4 were in 'non-conventional' waters, while of the 10 in 'conventional' waters, 5 were leased to Russian concerns and 5 to Japanese.

Fishing is also carried on in the rivers with snares, and in the winter along the sea edge, where breathing holes are made. By these simple methods, and some casual sea fishing in the summer, the natives and Russian peasants catch for their own use haddock, halibut, trout, ide, smelt, and various kinds of salmon.

The number of fish caught during the three years 1911, 1912, and 1913 off the coast of Russian Sakhalin was as follows :

| | Chum Salmon (<i>Kita</i>). | Humpback Salmon (<i>Gorbusha</i>). | Herring. |
|------|---------------------------------|---|------------|
| 1911 | 31,000 | 286,000 | 12,640,000 |
| 1912 | 16,000 | 126,000 | 14,036,000 |
| 1913 | 38,000 | 183,000 | 4,483,000 |

The herring fishery is declining off both parts of the island. Before the Russo-Japanese War the Sakhalin herring fishery district was the most important in the whole Russian Pacific, but now it has become of comparatively small importance.

In southern Sakhalin, even under the Russian regime, the Japanese had maintained the majority of the fishing stations, and a Japanese consul had been stationed at Korsakovsk to regulate the fisheries. For the year 1902 he reported that there were 35 Japanese and 20 Russian undertakings connected with the fisheries of southern Sakhalin. The total fish production for that year was 1,451,680 *puds*,¹ of which 1,131,600 *puds* represented fish fertilizer. The total value was 1,500,000 roubles (£158,125). In 1913 the value of the herring fishery alone is stated to have been £330,136, and of the total fishery £581,803.

During the first few years after the Russo-Japanese War there was a lack of control; not only were fish killed before spawning, but large numbers were left to die and rot. To-day there is strict Government

¹ 1 *pud* = 36.1 lb. avoirdupois.

control, licences are issued, and whereas there used to be as many as 870 fishing stations on the east coast and 423 on the west, the total number is now restricted to 375. An experimental fish farm has been established on the west coast, at which investigation and research are carried on. The chief fishing season is in August, when the herring, the *kita* or dog-salmon, and the *gorbusha* or humpback salmon arrive off the coast in schools to escape the cold north-eastern current. The salmon are cured or salted, but the herrings are mostly prepared for use in fertilizing the rice-fields and tea gardens of Japan. The herring fertilizer became of prime importance to Japan after the Chino-Japanese War had cut off the supplies of haricot pods.¹ If the decline of the herring fishery of the Pacific in the years 1916 and 1917 continues, Japan may have to find a substitute for fish guano in soya beans imported from Manchuria. Fishing for crabs has been developed recently, the catch being canned; fishing for cod and *karei* (flat fish) is also developing.

Bêche-de-mer or trepang, and sea-cabbage, valued as delicacies by the Chinese, are obtained off both Russian and Japanese Sakhalin.

(4) MINERALS

The chief mineral product of the island is *coal*, of which there are considerable deposits. The quality is better than the average Japanese coal and slightly inferior to the best, but is not equal to the coal from Fushun in Manchuria. The deposits are a commercial asset to be reckoned with in the future, though, owing to the backwardness and inaccessibility of Sakhalin, and to the presence of coal in north Japan, Primorsk, and northern China, the Sakhalin coal is not 'ready' for market.

In Russian Sakhalin coal is worked chiefly at Due and Vladimirsk. It is lignite, with about 66 per cent.

¹See above, p. 15.

of the caloric value of Welsh coal, and contains 71 per cent. of coke. The chief obstacle to its use is the absence of facilities for loading it on shipboard; lighters have to be used for this purpose. Mr. C. H. Hawes¹ mentions that a steamer of the Chinese Eastern Railway Company intended to load 2,000 tons, but at the end of three weeks had succeeded in embarking only 150 tons. Other hindrances to development have been the inefficiency of the convict labour, and Russian carelessness, which resulted in considerable damage to the mines. After geological surveys had been made it was estimated that the reserve of coal was 16,000,000 tons; the actual production in 1913—an average year—was 36,000 tons.

The lease of the mine at Due (at a royalty to the Government of $\frac{1}{4}$ kopeck per *pud*) expired in 1914, and the lessee company then experimented with a new vein four or five miles to the north of Alexandrovsk, thereby hastening its own end. The Government was to put up the lease to public auction for thirty-six years at Petrograd in 1914, a condition being imposed that the lessee should construct a harbour at Alexandrovsk for general use. The scheme of construction involved the building of a mole from Jonquière Head to the rocks called the Three Brothers, and the cost, as estimated in various projects put forward within the last twenty years, ranged from 3,500,000 to 7,000,000 roubles. Apparently there were no bidders, for the last report (1914) states that the mines are being let on a yearly basis, and are still being worked by Chinese labour. For thirty years the rumour has persisted that one of the most valuable mines is on fire.

In Japanese Sakhalin coal has long been mined at Sertonai on the west coast near the Russian border, and veins have been located in the south-western area, particularly in the Notoro peninsula. Reports are published from time to time of newly located seams, but the results of investigation have proved disappointing. The most recent discovery tells of a seam

¹ *In the Uttermost East*. London, 1903.

60 miles long and 1-3 miles broad on the east coast, stretching north from the mouth of the Poronai. The coal obtained, however, is very inferior; it is soft and breaks readily. A Government coal-mining station has been established on the west coast. It must not be supposed, however, that the coal in the Japanese area is comparable in quality to that of the Russian half of the island. The following statistics of production, given in the *Japanese Year Book*,¹ should be regarded with some caution:

| | | | | | <i>Tons.</i> |
|------|---|---|---|---|--------------|
| 1914 | . | . | . | . | 14,653 |
| 1915 | . | . | . | . | 27,665 |
| 1916 | . | . | . | . | 37,640 |

Oil springs and *paraffin* lakes are found at intervals for a considerable distance along the north-east coast of Sakhalin, especially near Chaivo Bay, on the Boatassin creek and Nutovo river. The discovery was officially reported in 1894, and the first shallow boring was made in 1900. An English company just before the Russo-Japanese War sent out an expedition which made a careful geological and analytical examination. Since then other important expeditions from Europe and the Orient have inspected the area and spent considerable sums in tests, but it yet remains to be proved that oil exists in commercially paying quantities.

The rumours, from Japanese sources, of the existence of 'oil veins' in South Sakhalin have not been substantiated.

Iron-mines exist in the north of Russian Sakhalin, but, as they have been only fitfully worked by the Russian Government, it seems that they do not promise to be of much value. Iron pyrites is found in Japanese Sakhalin, particularly in the Notoro peninsula.

Alluvial *gold* has been discovered in both North and South Sakhalin in small quantities. There are Japanese reports, to which too much importance should not be

¹ Y. Takenobu, *Japanese Year Book*, 1918. Tokyo, 1918.

attached, of the presence of *silver* and *copper* in the Naiko district. *Amber* is found on the shore of the Bay of Patience.

(5) MANUFACTURES

In Russian Sakhalin the Gilyaks, Oroks, and Tungus hew out canoes, and manufacture clothing out of dog-skins. The Russian peasants are almost entirely engaged on the land, and there are no manufactures on any considerable scale. There is a small iron foundry at Alexandrovsk.

In Japanese Sakhalin there are four wood-pulp mills, each with an annual production valued at £10,000. There are several canning factories. A dry distillate factory was established at Toyohara in 1911 for utilizing the white birch, the elm, and other broad-leaved trees. In the production of charcoal, calcium acetate, and wood-tar, 43,200 *kokus*¹ of timber (432,000 cubic feet) are reported to be used annually.

(C) COMMERCE

(1) DOMESTIC

Principal Branches of Trade

In Russian Sakhalin there is some traffic between the native tribes and the Russians, the former supplying furs in exchange for gunpowder and shot, potatoes, vodka, and tobacco. Also, at the time of the annual Bear Festival bears are frequently purchased with Russian supplies. These tribes also barter furs with the Japanese, who come to the Bay of Ni on the north-east coast, for rice, cauldrons, kettles, and needles; and with the Manchu traders, who come from the mainland to some central spot on the Tim, for Chinese cotton cloth (*ta-pu*) and coins to adorn the skirts of Gilyak ladies.

Amongst the Russian inhabitants themselves there is little trade. The peasants are almost self-sufficing,

¹ 1 *koku* of timber = 10 cubic feet.

and such trade as exists consists merely of the sale of the small surplus of the products of their farms or gardens and the purchase from the few general stores at Alexandrovsk, Derbensk, Rikovsk, and Slavo of such articles as hardware, clothing, brick tea, rice, tobacco, and gunpowder and shot.

In Japanese Sakhalin the Ainus traffic in furs, although they are more and more engaged in transport with dog and reindeer-sledges and in the fisheries. The settlers in this part have better markets for their produce than those in the northern part of the island, since they can sell to the thousands of fishermen engaged along the coasts.

(2) FOREIGN

(a) *Exports*

The chief articles of export from Russian Sakhalin are fish, coal, and furs.

Fish is exported in quantities nearly equalling the total amount caught off the coast, but no information as to value is available. The products prepared from fish amounted in 1911 to 1,212 tons, in 1912 to 1,068 tons, and in 1913 to 690 tons. The 1913 catch was made into the following products :

| | <i>Tons.</i> |
|--|--------------|
| Fish, salted by the Russian method | 79 |
| Caviare, prepared by the Russian method | 22 |
| Fish, dry salted for the Japanese market | 274 |
| Herring fertilizer for the Japanese market | 274 |
| Fish oil for the Japanese market | 38 |
| Caviare for the Japanese market | 3 |
| Total | 690 |

Coal was produced in 1913 to the extent of 36,000 tons, and nearly the whole of this was exported. It was taken partly by tramp steamers of various nationalities, and partly by the Russian Volunteer Fleet and steamers of the Chinese Eastern Railway Company.

Furs are taken by the richer Oroks and Gilyaks early in the year to Nikolaevsk on the Amur. Reindeer, sable, fox, and marten are among the furs thus exported. There used to be an export of sealskins, but the fur-seal is now rare.

The chief exports from Japanese Sakhalin are fish, timber, and coal.

Fish is the most valuable product. The quantities and values of the fish manure exported to Japan in the period 1897–1903 were as follows :

| | <i>Tons.</i> | £ |
|-------------------------------|--------------|---------|
| 1897–1901 (average) | 17,624 | 123,924 |
| 1902 | 19,979 | 140,864 |
| 1903 | 28,390 | 192,156 |

In 1903 the export of herrings amounted to 188,459 *kokus*¹ (934,756 bushels), and in 1907 reached its maximum with 234,316 *kokus*, the amount falling in 1914 to 205,644 *kokus*, of which 1,800 *kokus* were salted and sent to China for food. The export of salmon, which in 1903 amounted to 4,639 *kokus* only, rose in 1914 to 17,977 *kokus*. The export of trout, which amounted to 27,061 *kokus* in 1903, reached in 1912 a total of 127,815 *kokus*, which, after a decline in 1916, was succeeded in 1917 by a still larger export of 167,620 *kokus*. The export of crab has developed in recent years, and 5,760,000 cans were exported in 1917, chiefly to America. There is also an export of trepang and sea-cabbage to China.

Timber was exported to a value of £3,522 in 1912, and of £13,155 in 1913 ; these figures should, however, be increased by the value of the timber reaching Hakodate *via* Hokkaido ports.

Almost the whole of the *coal* produced is exported. In 1914 the production amounted to 14,653 tons, in 1915 to 27,665, and in 1916 to 37,640 (but cf. p. 35).

Besides these three chief exports, match-sticks, wood-pulp, and probably all the charcoal, calcium acetate, and wood-tar products, are exported.

¹ 1 *koku* = 4.9 bushels.

(b) Imports

No information is available as to the amount of the import trade of either part of the island. In Russian Sakhalin the local products are so scanty that many of the necessities as well as the luxuries of life have to be imported. These include some cereals, brick tea, rice, tobacco, clothing, hardware, and rifles. In Japanese Sakhalin, the Japanese craftsman can supply most of the native needs, but rice, tobacco, tea, and clothing have to be imported, and the fishermen need nets and gear, tins for canning, and other articles, besides salt, which is imported from Taiwan (Formosa).

(c) Customs and Tariffs

Information is wanting as to whether any customs dues are collected on imports to Sakhalin, or on goods passing from one part of the island to the other. No mention is made of them in the Japanese budget, nor in the scanty details of the Russian budget available.

(D) FINANCE*(1) Public Finance*

Until 1905 there were no taxes in Russian Sakhalin, and any taxation since imposed has been light. The Treasury receipts for 1911, mostly from shop licences, amounted to 57,426 roubles, while the expenditure for the island administration must have approached 1,000,000 roubles.

In Japanese Sakhalin, since the establishment of the special account in April 1907, a fixed grant has been made annually by the National Treasury to help towards defraying the expenses of colonization and administration; but apparently in the budget estimates for the year 1918-19 the need of this is for the first time not anticipated. The budget estimates for that year were as follows: ¹

¹ *Financial and Economic Annual of Japan*, 1918, p. 192.

REVENUE

| <i>Ordinary :</i> | <i>Yen.</i> |
|---|------------------|
| Direct taxation | 312,819 |
| Revenue from public undertakings and State property | 1,564,049 |
| Licences and fees | 228,221 |
| Stamp receipts | 88,393 |
| Miscellaneous | 17,996 |
| Profits of tobacco monopoly | 144,113 |
| Total | 2,355,591 |
| <i>Extraordinary :</i> | |
| Proceeds of sale of State property | 283,432 |
| Surplus of preceding year transferred | 462,815 |
| Proceeds of loans received | 1,203,100 |
| Miscellaneous receipts | 2,934 |
| Total | 1,952,281 |
| Total revenue | 4,307,872 |

EXPENDITURE

| <i>Ordinary :</i> | <i>Yen.</i> |
|---|------------------|
| General administration | 1,428,967 |
| Reserve fund | 80,000 |
| Transferred from general account | 41,519 |
| Expenses for shrines | 8,000 |
| Total | 1,558,486 |
| <i>Extraordinary :</i> | |
| Expenses for management of business | 110,297 |
| Building and engineering | 526,218 |
| Colonization | 562,550 |
| Special undertakings expenses | 1,403,100 |
| Expenses for taking of census | 4,262 |
| Special allowance | 142,959 |
| Total | 2,749,386 |
| Total expenditure | 4,307,872 |

With this may be compared the budget for 1913-14, the last pre-war year, when the ordinary revenue amounted to 1,983,934 yen, and the extraordinary revenue to 687,013 yen, making a total of 2,670,947 yen. For the same year the ordinary expenditure was

1,007,665 yen, and the extraordinary expenditure 1,270,381 yen, making a total of 2,278,046 yen ; there was thus a surplus of 392,901 yen.

(2) *Currency*

The currency in the Russian and Japanese parts of the island is the same as in the rest of the two Empires. In Russian Sakhalin, as in eastern Siberia, more silver and fewer notes were in circulation before the war, than in western Russia.

In accordance with the Imperial Ordinance of October 29, 1917, the Japanese have issued paper notes of small denomination—50, 20, and 10 sen¹—to supplement the usual Japanese coinage of gold, silver, nickel, and bronze pieces. The total issue of the notes to the end of August 1918 was 65,689,000 yen.

(3) *Banking*

The Hokkaido Colonial Bank, with an authorized capital of 10,000,000 yen (£1,020,833), of which 6,250,000 yen have been paid up, was established to supply capital for the colonization and exploitation of Hokkaido and Japanese Sakhalin. The bank is empowered to make long term loans at low interest on the security of real property, and short term loans on the security of the agricultural or marine products of Hokkaido and Japanese Sakhalin. It is authorized to make loans on pledge of the shares and debentures of joint-stock companies, which have for their object the colonization and exploitation of Hokkaido and Japanese Sakhalin, and to subscribe for and take up the debentures of such companies. It can also make loans without security, redeemable by annual instalments, or within fixed terms, to industrial, fishery, forestry, or stock-breeding guilds, or to associations of such guilds.

¹ 100 sen = 1 yen = 2s. 0½d. (approximate).

(E) GENERAL REMARKS

The population of Russian Sakhalin has steadily decreased since the time of the Russo-Japanese War. The reasons are not hard to determine. The island, owing to its long use as a penal settlement, bears an ill name; and, except to the speculative miner, its natural resources offer none of the attractions of the mainland. Agriculture will never be a serious factor in its development; the possibilities of economic expansion are greatest for timber, coal, and petroleum. Timber, however, had been cut and burned over large areas before the settlement of 1905, and facilities for transport are lacking, so that, although the world scarcity of timber may temporarily foster the development of this industry, it can scarcely prove a permanent source of prosperity. The coal industry promises greater reward for development, but it is seriously handicapped by the want of facilities for loading, and by the damage caused by careless mining. These defects are especially important in view of the competition of the coal-mines of Manchuria, Primorsk, and Japan. A petroleum industry is often spoken of, but it does not exist at present. The presence of petroleum in quantities large enough to make exploitation remunerative has not yet been proved. The development of the Russian territory remains, therefore, uncertain, dependent on factors which have not yet been determined.

Japanese Sakhalin has the advantage of a less severe climate, with less fog. Agriculture, therefore, has a better chance, and is likely at least to provide the means of livelihood for a considerable number of peasants; and there are still better prospects for stock-breeding. The timber and wood-pulp industries promise considerable development, but a careful afforestation policy is necessary. Fishing has been the staple industry in the past and may continue to be so; the island fisheries have, however, been far outstripped by

those along the Siberian coast. Moreover the great schools of fish display nervousness; and it is possible that the effect of the increasing steamer traffic may be to frighten away the fish from the waters off the island, as they have already been frightened from the coasts of Japan. The coal industry continues to grow, but the inferior quality of the product is likely to make progress slow. The possibility of developing an oil industry is even more doubtful in the southern portion of the island than in the northern. The prospects of the southern part of the island are, on the whole, good; and this is due largely to the activity of the Japanese Government in encouraging settlement and investigation and in maintaining control of the exploitation of the natural resources.

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MAPS

A special map of Sakhalin has been issued by the Intelligence Division of the Naval Staff, on the scale of 1 : 4,000,000, in connexion with this series (March, 1919).

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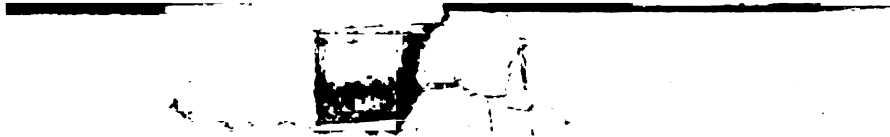
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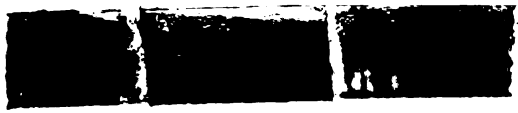
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